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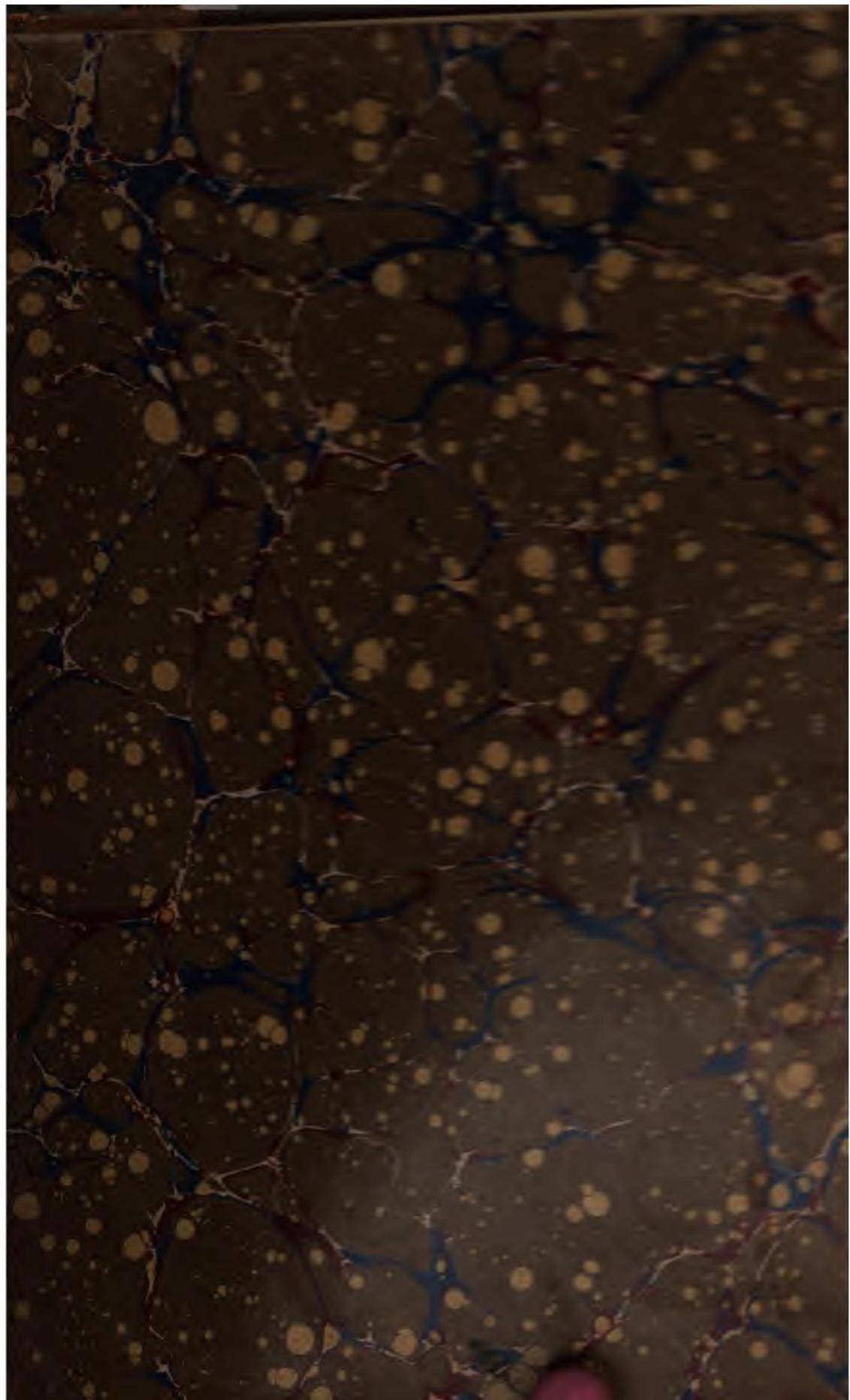
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Published in the Interests of Californian Ornithology.

BULLETIN
- of the -
COOPER ORNITHOLOGICAL CLUB.
OF CALIFORNIA.

VOL. I.

Santa Clara, Cal., January-February, 1899.

NO. 1.



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BULLETIN

— OF THE —

COOPER ORNITHOLOGICAL CLUB.
OF CALIFORNIA.

A BI-MONTHLY MAGAZINE OF PACIFIC COAST ORNITHOLOGY.

Volume One, 1899.

— PUBLISHED BY —



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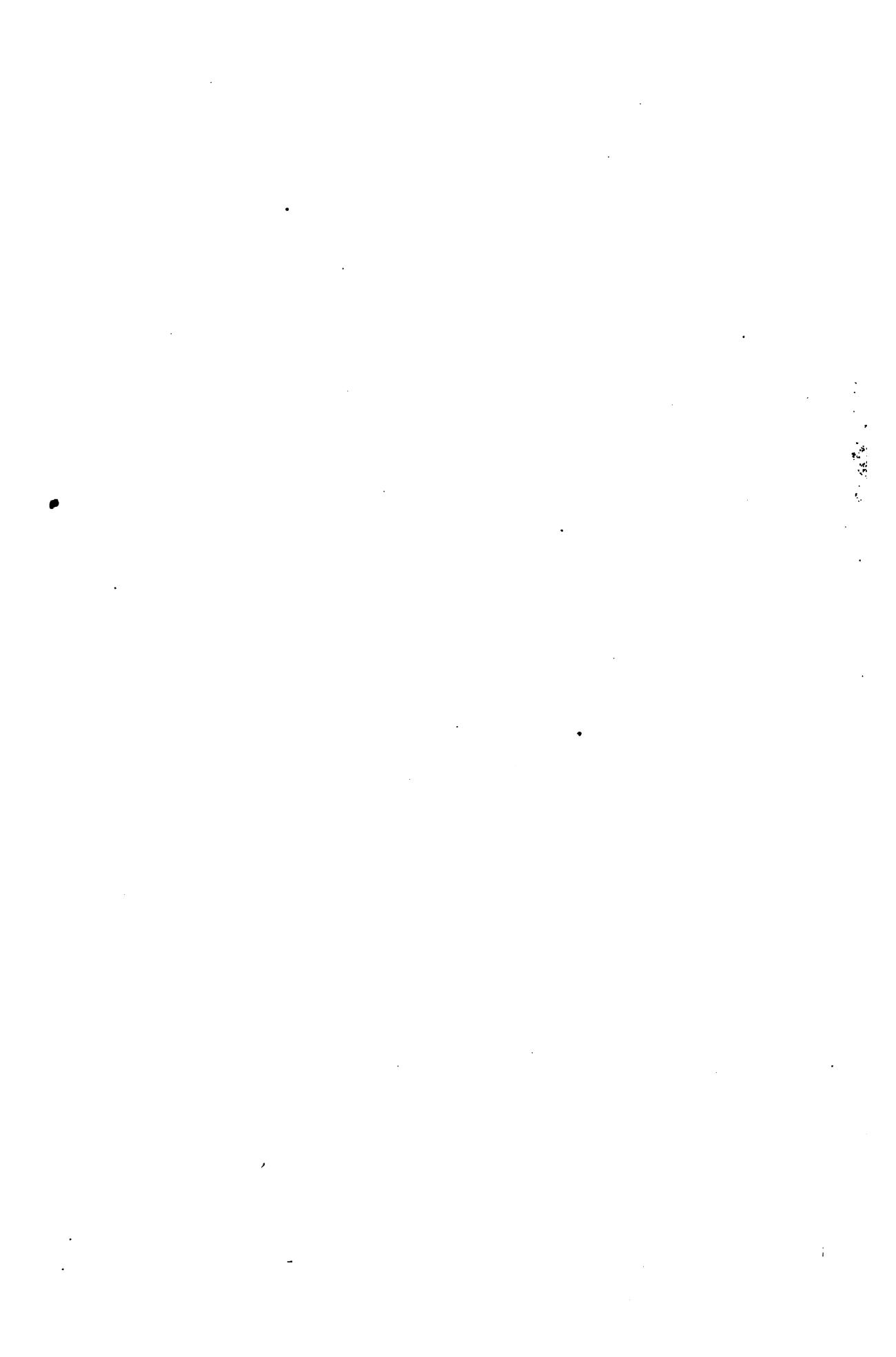
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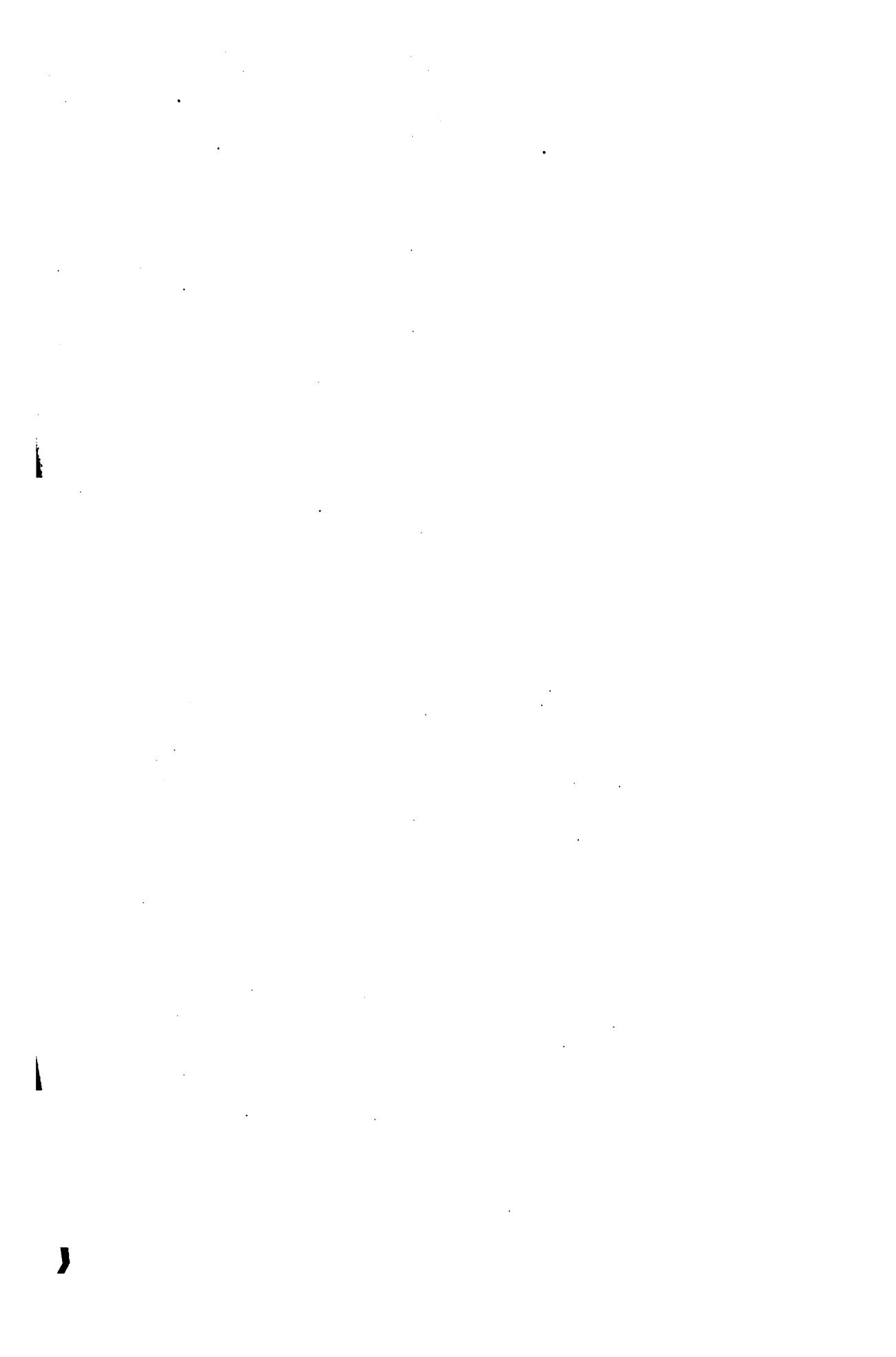
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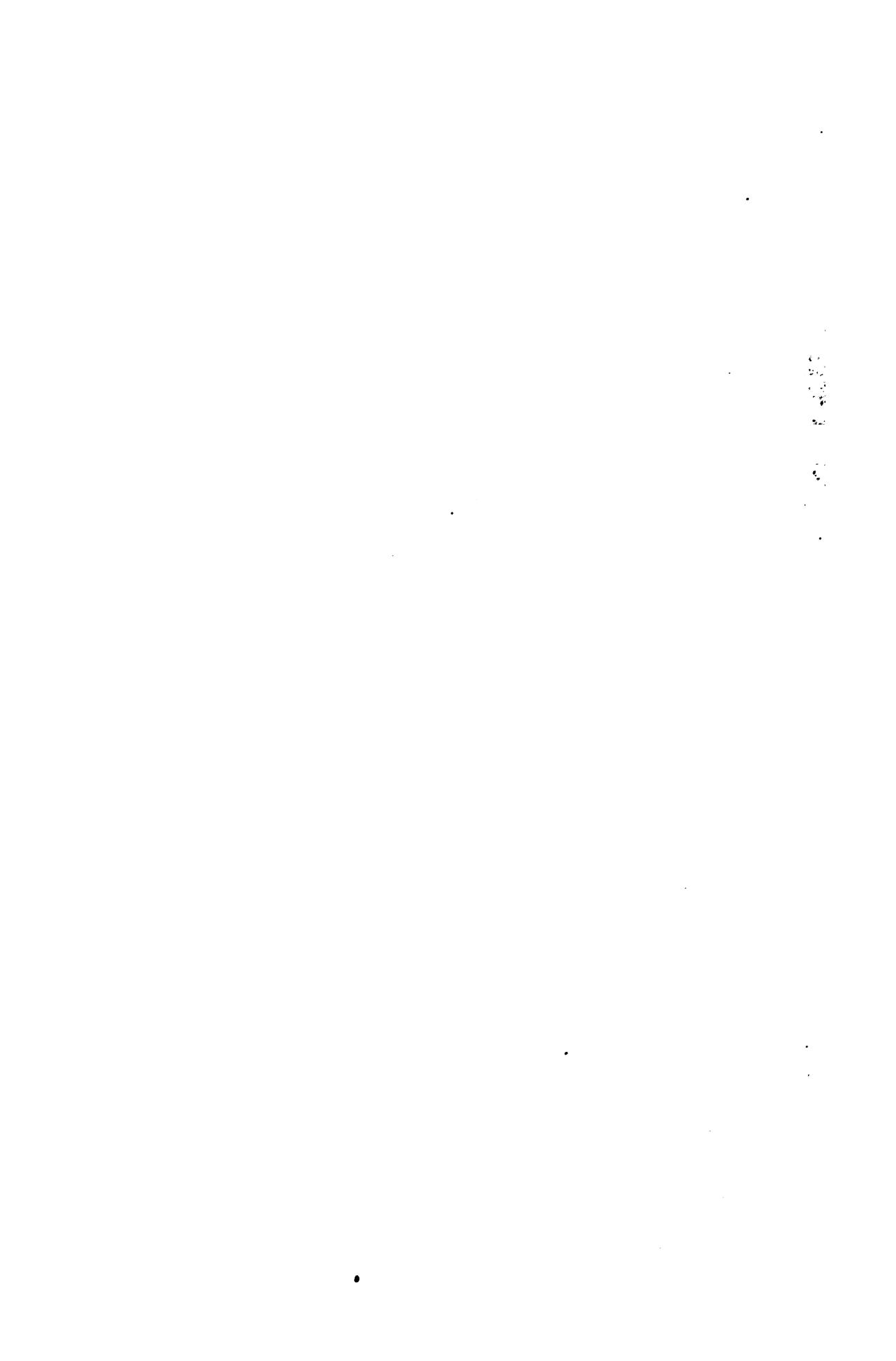
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• DR. JAMES G. COOPER.

BULLETIN
— OF THE —
COOPER ORNITHOLOGICAL CLUB.
A BI-MONTHLY EXPONENT OF CALIFORNIAN ORNITHOLOGY.

Vol. 1. No. 1.

Santa Clara, Cal., January-February, 1899.

\$1.00 a Year.

Dr. JAMES G. COOPER.

A SKETCH.

[By W. O. EMERSON, President of the Cooper Ornithological Club.]

IT is proper, and in accordance with the wish of the Club, that the initial number of the BULLETIN should contain a brief sketch of the life of him, in whose honor our Club is named,—Dr. James G. Cooper.

The fact that Dr. Cooper, though very feeble, is yet alive, precludes us from entering upon any detailed view of his private life, even though it be that phase with which his friends most delight. We must, therefore, confine ourselves to the scientific aspect of his life, as it is in this relation that he is best known to thousands who have never met him, and who will be pained to learn that it is almost impossible for him to receive visitors, as it is difficult and painful for him to speak.

When it became necessary for us to visit him to verify certain portions of this sketch, we noticed his evident pleasure when he learned that the Club intended to publish its own BULLETIN, and he expressed the wish to do all that he could to further its interests. To us this meeting was at once a promise and a benediction. For many years he had been to us a friend and a guide, and necessarily our mind reverted to the time when we learned of bird-life at his feet. As we looked on his kindly face and listened to the almost inarticulate words, in memory we traveled backward to the time of our first lesson in bird-life; he sitting on a rock in the shadow of the trees, and the student watching the birds which he noted as they flew about us or jumped from stone to stone, making the air vibrate with their music.

Eighteen years ago! What a vista of time is here unrolled. What changes this period has

wrought, yet in memory he is again giving his first field lesson, taking the Rock Wren for an object study as it sits on a huge blue-gray rock singing to us its song of welcome. Here he talked to us of Nature in all of her varied forms; told of the birds, their songs, their flights, plumage and their home-life; of their loves and hates, joys and sorrows! All of this was told in common language, without scientific nomenclature, and thus we saw Nature and her works through the eyes of one who loved and had long questioned and learned many of her secrets, until the setting sun found us yet worshiping in Nature's temple, and the student gaining his first glimpse into that grand *arcana*. This was our teacher's manner; thus he gathered around him the young ornithologists and in the field taught them the lessons of bird-life, and it was from the incentives of these field studies that our Club was formed, and in his honor named, and at the Club meeting held December 5, 1896, he was by unanimous vote placed on our roll as an Honorary Life Member.

The Secretary of the Club, Mr. C. Barlow, fully expressed the sentiments of all when, in advising Dr. Cooper of the action, he wrote: "The Club which was named in your honor was organized June 22, 1893. * * * As an organization of comparatively young workers, we all feel indebted to yourself and the few remaining veteran ornithologists for the excellent and valuable material which you have prepared in the years past."

James G. Cooper was born June 19, 1830, in New York, being the eldest of a family of six children. In the spring of 1837, his father, Wil-

liam Cooper, moved to New Jersey and settled at Slongha, near Hoboken, where James commenced his school life, but it was not until he was ten years of age that his school life really began, as prior to this time he was subject to many and severe spells of illness. As he was obliged to walk a mile or more through the fields, he took many of the side paths for the purpose of hunting birds, shells, snakes and other objects of natural history, thus early showing the tendency which has marked his later years. During this period and the succeeding years, he was largely indebted to his father for his education and real preparation for his after career. It may be proper that we devote a few words to the father who exerted so great an influence in the son.

His father, William Cooper, was born in the year 1798, and was the son of James Cooper, an English merchant, who, coming to New York shortly after the Revolutionary War, accumulated a comfortable fortune, and died in 1801. William gave up all ideas of business and devoted his life to the study of Nature, inheriting these tastes from his mother, who was Miss Frances Graham. At the age of nineteen William Cooper united with a number of others and established the Lyceum of Natural History of New York, which became the school of many of our noted scientists. Senator Samuel L. Mitchell, M. D., was the first President, who with Cooper laid the foundation of its magnificent museum. Nathaniel Paudling, the poet, was its first Secretary, and William Cooper was Secretary in 1818 when it was incorporated. For many years Dr. John Torrey, who was the educator of many of our noted botanists, was the curator of the museum, and the intimate personal friend of Mr. Cooper, and to him Dr. Torrey dedicated his first real botanical work, *The Botany of the Northern and Middle States*. At this time Prof. Eaton was, under the direction of Courtland Van Rensselaer, making geological surveys. These old records of the Lyceum, which are before us as we write, vividly recall the early struggling days of science in the United States. What a list of scientific workers, do these old files of proceedings recall. Mark the time, 1818 to 1854.

In 1821 William Cooper departed for Europe in order to perfect himself in zoology, and was the first American member of the Zoological Society of London. He attended the lectures of Cuvier and those master minds of the Jardin des Plantes, and on his return to the United States took up the study of Palaeontology, be-

ing among the first in our country to engage in this science. He became the warm friend of Schoolcraft who afterwards made for himself a name as a historian of the Indian races. William Cooper was the friend, correspondent and co-laborer of Lucian Bonaparte, and edited the last two volumes of Bonaparte's works, who showed his appreciation of the assistance by dedicating to Cooper one of the finest of his new species, *Falco cooperi*, the type specimen of which was shot by Cooper in Hudson County, N. Y. and, another type specimen, *Aetodrmas cooperi*, was also taken by him, and it is unique in the fact that no second specimen has been secured. The result of William Cooper's ornithological work is largely incorporated in Bonaparte's works. He was the friend of Audubon, and Nuttall, and gave them the use of his specimens and notes, and assisted them in their works. He died April 20, 1864, and at this time, he and his life long friend, John Torrey, were the only surviving members of the original Lyceum, Mr. Cooper having been a member forty-seven years.

Nurtured by such influences, his education superintended by such a father, his earliest memory being of the conversations of such men, it would be impossible for the subject of our sketch to be other than that which he has been,—an authority in his own field of study. In 1851 James G. Cooper graduated from the College of Physicians and Surgeons, New York, and henceforth will be known to us as Dr. Cooper. The succeeding two years were spent in the City hospitals, when at the beginning of the year 1853 we find him taking the initiatory step that to him was the turning point of his life; a period in which hope and ambition as regards certain directions became ruling factors and decided his course.

We may be pardoned for dwelling a moment on a period that strengthened his tendencies, and decided the course of his ambitious future. At this time the Government had determined to take some action in regard to a trans-continental railroad, and was making arrangements for a preliminary survey for a route between St. Paul and Puget Sound, and, on April 27, 1853, Dr. Cooper signed a contract with Gov. I. I. Stevens, (who had lately been appointed Governor of the Territory of Washington, and placed in charge of the survey) as one of the physicians to the survey. This appointment meant more to him than the mere \$70.00 a month that he received, as it brought him into direct contact with those bright and

able minds whose after acts became a large portion of the history of our country, and of science. What a galaxy of bright names have been clustered around this survey. These were the men with whom our friend lived, thought and acted.

To the Eastern division Dr. Suckley was assigned, while Dr. Cooper was assigned to the Western under the direct superintendence of Brevet Captain Geo. B. McClellan of the Engineer Corps, to whom he reported June 14, 1853.

At this point we must digress to note the names here associated, which in a few years were to stand as the supporters of principles whose final disposition was made the basis of our Civil War. Jefferson C. Davis wrote and issued Dr. Cooper's instructions; Geo. B. McClellan was his immediate commander; U. S. Grant was the Regimental Quartermaster that issued his supplies; A. J. Donelson was in command of the escort and Hardie in command of the Division of the Pacific. As we read the orders and documents signed by these men, what memories are awakened!

Connected with this survey was Mullen, who afterwards became the roadmaker. There were John Torrey, Asa Gray, F. V. Hayden, Gibbs, Meek, Baird, Le Conte, Lesqueraux, Warren, Suckley and others who were co-laborers with Dr. Cooper, and who have written their names on the scroll of the world of science. From June 14, 1853 to April 1, 1854, Dr. Cooper was engaged in making botanical and zoological collections and meteorological observations. This latter work was the peculiar duty that was always assigned to the surgeons of the army, but until this time it had not been productive of any tangible results, although Blodgett had attempted to formulate some of the laws regarding climatic conditions, and was busy in reducing the accumulated observations, and Redfield had propounded his theory of storms. While engaged in the study of the forest growth of the Northwest, Dr. Cooper's attention was directly called to the correspondence between the forest distribution and climatic influences, which largely determined the environment. The result of this study was communicated to the public through the Smithsonian Institute, and was the first systematic statement regarding the forest growth that was issued by the Government.

While Dr. Cooper can not be regarded as a professional meteorologist, yet the reductions of the observations of this survey are models,

and these observations had a profound influence on his future work. The survey was disbanded April 1, 1854, and McClellan ordered our friend to report to Gov. Stevens at Fort Vancouver. His specimens were transmitted to Prof. Baird at Washington, to which place he soon went for the purpose of preparing his report. Returning to the coast he spent the entire year of 1855 in collecting specimens of natural history, and it was at this time that his attention was so strongly fixed upon that line of thought in which probably he is best known—that of Conchology. His report on the ornithology of the survey has become a model, and is marked by deep, searching and comprehensive observations. Dr. Suckley was a joint author with Cooper, and reported on a separate section.

Late in the fall of 1855 Dr. Cooper went up the coast to Gray's Harbor, joining the Indian Treaty Commission under Gov. Stevens, intending to accompany the Governor to the Blackfoot Council at Fort Benton, but in this he was disappointed. In the meantime he made a voyage to the Straits of Fuca and spent a month on Whitby's Island, collecting specimens, returning to Shoalwater Bay in July where he remained until Oct. 4, when he sailed in the Coast Survey steamer *Active*, by invitation of Capt. Allen, to San Francisco. He spent six weeks collecting specimens in the Santa Clara Valley, then proceeding southward to Panama he collected shells for his father, whose last scientific writing was a report on West Coast shells, *Pacific R. R. Report*. This large collection passed into the hands of the Chicago Academy of Sciences and was destroyed in the great fire. Dr. Suckley was not with him at this time, he having returned to the East. Altogether Dr. Cooper spent two years and three months in Washington Territory, and this was really his school of preparation. From April 1, 1854, until 1857, all of the work that he did was by his own private enterprise and in obedience to his love for science, and it is at this point that we bid farewell to the botanist and welcome the ornithologist and conchologist.

On April 22, 1857, Dr. Cooper was by the Secretary of the Interior, appointed Surgeon to the Wagon Road from Fort Kearney to the South Pass and Honey Lake. However, when the expedition reached the Rocky Mountains, it became necessary to disband it, and the Doctor went on a collecting trip through the Mojave desert. The results of this trip are contained in his various reports on the fauna of

Montana, Wyoming and the Mojave, and are scattered through his later writings. On April 16, 1860, Gen. W. S. Scott issued special order No. 47, directing Dr. J. G. Cooper as Contract Surgeon, to report at New York, and to proceed thence to Fort Columbus, Department of Oregon, accompanying a detachment of recruits. This duty terminated Oct. 19, 1860, but his contract was continued to Dec. 1 of that year. Again as a student we find him collecting along the coast from San Francisco to San Diego. From now henceforward we view the energetic, thoughtful, scientific mind. From 1861 to 1874 was one continuous series of field observations and studies, the results of which are embraced in his numerous publications until the year 1890. This period will again be examined when we speak of his publications.

The gigantic struggle of the Civil War found him a student and an active worker in the field of science. Watching this struggle, listening to the roll-calls of the dead, sick and wounded, he again sought service in the army, and on May 24, 1864, Gov. F. F. Law commissioned him as Assistant Surgeon, 2d Cavalry, California Volunteers, and he served with this regiment until its muster out. Even during this period he did not relinquish his scientific work, which was that of identification of individual specimens, of reference, and in publishing his observations. He was now a systematist and not a collector. January 9, 1866, he was married to Miss Rosa M. Wells at Oakland, California.

It is not our purpose to draw aside the curtain that separates his scientific and public life from the sanctity of his home-life. At present we feel that we have no right to enter the home and to paint the picture of the peace and happiness of that home circle, where, surrounded by wife and children, he, in perfect security and the loving trust of a well spent life, calmly awaits the summons that shall bid him move to another home. Sometime it may be our duty and pleasure to draw the picture of his home life and to write more fully of his scientific life, but the time is not yet come, and it may be that other and better pens than ours may perform this duty, but none would bring to its accomplishment more loyal labor. Until 1871 Dr. Cooper was in the active practice of his profession, when his health failing, he moved to Ventura County, California, and remained there engaged in collecting until in 1875 he moved to Hayward, California where he now resides.

Thus far we have carried a brief, running itinerary, as it were, of his scientific life, recounting his movements until the time that he moved to Haywards, at which it is our purpose to leave this view of his life, and take up the purely scientific portion and his publications. In 1858 Dr. Cooper was made a member of the New York Lyceum, now New York Academy of Sciences. Although not one of the charter members of the California Academy of Sciences, he is one of its early members, and until failing health prevented, one of its earnest and active workers, holding for several years the office of Vice President and one term as Second Vice President. During the time of the auxiliary clubs he was the President of the Zoological Club. Much of his active work in connection with the Academy has been in palaeontology, and he was for some time curator of this section. A large number of his works were first published in the Proceedings of the Academy. He did considerable work on the Geological Survey of California under Whitney, a portion of this being in pure geology and a portion in palaeontology. He compiled the catalogue of California Fossils for the Mining Bureau.

Our first impulse was to give a full catalogue of his publications, but having arranged a full list of titles, we have thought it would meet the requirements of this sketch in a better manner if a synopsis by subjects were given in lieu of the catalogue: On Conchology, 43 papers, Botany, 6 papers, Ornithology, 12 papers, Mammals, 8 papers, other scientific subjects, 7 papers. Total, 76. While his scientific work has been a varied one, it is his ornithological work that particularly interests our Club, and it may be inappropriate for the BULLETIN to present any other phase, yet before examining his ornithological contributions we cannot refrain from mentioning other work for the reason that it bears so directly on certain phases of his purely ornithological work. Necessarily we must omit any reference to conchology and palaeontology, as the scope of the BULLETIN will not admit of such discussion. Nor is it our present purpose to critically examine his ornithological writings, but rather to draw attention to the fact that Dr. Cooper is one of our best ornithologists, because, to many, the conchologist has overshadowed the ornithologist in his work. We wish now to refer directly to the work that in reality was the result of his meteorological observations and directed his attention to the question of the geographical distribution of

plants and animals. This subject has been distinctive of all of his later work, and if we are not in error, he was the first to note the particular laws governing the environment of bird-life.

At the time he presented his essay on the geographical distribution of plants, no one in the United States, and only De Candolle, Richard and Humboldt in Europe, had critically examined this subject, and Michaux, on the basis of the forest growth of a portion of the United States had noted it. While Pursh, Bartram, Nuttall, Barton and Torrey had preceded him, they are silent on the laws or conditions governing the distribution, and while Douglas and Eschscholtz preceded him on the West Coast and noted cases of geographical distribution, they were from the very paucity of systematic observations unable to formulate any scientific generalizations. Then we regard this essay as the first systematic presentation of this subject in the United States. From the plants he carried this question into the life history of the *Mollusca*, and thence he laid the foundation of his generalizations regarding the distribution of bird-life. There can be no doubt that this question of geographical distribution has marked and modified our views of the life history of birds, and from the mere descriptive technology of ornithology, we have opened a new and varied field of ornithological study. In this particular field he has been a pioneer, and it is a portion of the special work of this Club. To the scientist the work of Dr. Cooper is of special value, and this is acknowledged and emphasized by Prof. Baird, who says: "By far the most valuable contribution to the biography of American birds that has appeared since the time of Audubon, is that written by Dr. J. G. Cooper in the Geological Survey of California."—(BAIRD *North American Land Birds*. Preface page 1.)

While the number of his publications on conchology exceeds those on ornithology, in the latter they have taken the form of finished works or monographs, which have such a value as attaches to the works of Audubon, Baird, Wilson and Bendire. During his work on the Pacific Coast Dr. Cooper discovered and established ten forms, which will be made the subject of a paper in our next issue.

Lewis' and Clarke's explorations to the head waters of the Missouri River made known to us that vast expanse of territory known as the Northwest and Audubon, Nuttall and Townsend were the first to describe and make

known its zoology. The exploration of Maj. Long in 1870, of which Dr. Edwin James was the scientist, reached to the south and west of the territory covered by Lewis and Clark, but did not to any great extent enlarge our knowledge of its zoology, as James was a better botanist than zoologist. To a certain extent the same may be remarked respecting the explorations of Fremont. The botany of these several surveys and explorations was particularly elaborated by Torrey, Gray, James and Eaton, while the zoology was not so thoroughly elaborated.

In 1831 Sir John Richardson published the results of his observations of a portion of the territory covered by the Hudson Bay Company, but none of these, however, explored Colorado, Arizona, Nevada and California, although the work of Eschscholtz covered a portion, and it was not until the Geological Survey of California under Whitney that this territory really became known to science. Thus this survey becomes a starting point and a scientific epoch, as it were. To this survey Dr. Cooper was assigned as zoologist and by mutual consent between he and Whitney, the notes and specimens were to be placed in the hands of Prof. Baird for elaboration at the Smithsonian Institute, and to be finally published as a portion of the work on *The Land and Water Birds of North America* by Baird, Brewer and Ridgway. This arrangement, however, was not practically carried out, and a large portion of this work was published by Whitney as a part of the California Reports. A portion of the bird skins were deposited at the State University at Berkeley.

Thus it was the zoological work of Dr. Cooper in connection with this survey that has so enlarged our real knowledge of the zoology of this section. Thus, from December 1860 until April 1862, and a considerable portion of 1863 he was collecting in the Colorado Valley near Fort Mojave. This included the vicinity of San Diego, San Pedro, Santa Barbara and the islands of the coast. In 1864 he explored a portion of the coast from Bolinas Bay to Santa Cruz, and during a portion of this time (1862) was assisted by Dr. Edward Palmer. During this period he did a large amount of gratuitous work, in the way of elaborating the material in various branches of the zoology of the Pacific Coast. In 1865 he prepared his series of reports on the higher classes of animals. We hope that this preliminary sketch will call attention to Dr. Cooper's ornithological work, and while it is not intended to be critical, we have attempted to do him justice as an original observer and as an author. In a subsequent issue of the BULLETIN we will give a detailed catalogue of his ornithological publications expressly prepared for students who wish to examine them.

Nesting of the Santa Cruz Jay.

ON the 30th day of April, 1897, I was landed on the west end of Santa Cruz Island and for five days busied myself in collecting and caring for the few species of birds found within a few miles of camp. I had been hoping to find the Santa Cruz Jay nesting, but until the forenoon of the 8th of May not a bird had been seen. On that day, after a long walk up the bottom of a canon, the first Jay was seen perched on a dead willow stump a short distance ahead, and was at once laid away in my basket out of the hot sun. A 20 minutes' search among the bushes and small trees nearby revealed a nest in the thick top of a scrubby oak, on the steep side hill and on a level with my eyes. A careful approach showed the female on the nest where she remained until my hand was but 18 inches from her. She then flew to a tree forty yards off, from which she too was laid away with her mate.

The nest contained two eggs and was the counterpart of a California Jay's nest, being composed principally of oak twigs and lined with rootlets. The next day, after a long steep climb over rough hills, a second nest was found near the bottom of a rocky canon in a tangle of bushes. The birds were heard calling on the hill above the nest, which, after a short search, was located. It was similar in construction to the first and contained three eggs. A half mile farther down the canon another nest was found near the end of an oak limb, fifteen feet from the ground and contained two young birds. The location, material and size of this nest was very similar to that of the Blue-fronted Jay in Santa Clara County, Cal., so much so in fact, that I had to tear it slightly to make sure there was no mud in it. The birds were absent when I climbed out to it, and I thought it possible that the Blue-fronted might occur on the Island.

A few hundred yards farther a nest was seen in a willow tree near the stream, twelve feet up. The bird remained on until I nearly touched her, when she flew across the stream and called her mate, who came and silently watched me a short distance away.

The silence of the Island Jays was very noticeable, and except for their habit of perching in conspicuous places, might have prevented their discovery. Judging from the four nests examined, two or three eggs would seem to be an average set. The eggs are somewhat larger than the average eggs of *A. californica*. Those obtained measure: (Set $\frac{1}{2}$); 1.21x.85, 1.18x.84. (Set $\frac{1}{3}$); 1.15x.90, 1.18x.90, 1.18x.92. (Set $\frac{2}{3}$); 1.10x.86, 1.14x.88, 1.16x.86 inches. The markings are much lighter in color also, being light brown, grayish and lavender.

R. H. BECK.

Berryessa, Cal., Dec. 24, 1898.



Two Albinos from Los Angeles, Cal.

Carpodacus mexicanus frontalis—On Oct. 14, 1898 I secured an albino House Finch from a large flock of the same species. The head, neck and body of this bird are of almost snowy whiteness. On the wings, two primaries, two secondaries and most of the greater and lesser wing coverts are white; the remainder of the wing feathers are normal. The pattern of coloration on the wings is exactly similar. The tail is normal, with the exception of one of the middle feathers, which has a white tip and has a peculiar shriveled appearance. The bill was white, rather bluish toward the tip; the feet, pale flesh color, and the legs a trifle darker; iris, brown. On dissection it proved to be an adult female.

Zonotrichia leucophrys intermedia. On Dec. 18, 1898, Mr. O. W. Howard brought me several birds he had secured the same day, and among them, an albino Intermediate Sparrow. It was an immature bird, but the sex was indistinguishable, the sexual organs being destroyed by the shot. It is of a dull, smoky white all over except on the top of the head, where traces of the brown crown are apparent. Traces of the white tips are visible on the greater wing coverts, which are a trifle darker than the rest of the wing. The iris was brown. H. S. SWARTH, Los Angeles, Cal.

Spring Migration of 1896 in the San Gabriel Valley.

BY HORACE A. GAYLORD, PASADENA, CAL.

[Read before the Southern Division of the Cooper Orn. Club, Jan. 8, 1898.]

OWING to the mild winter of 1895-96, the spring migration of 1896 was somewhat earlier than usual. Beginning in the latter part of February with the arrival of flocks of Violet-green Swallows, the migration promised to be at its height before the middle of April. But on March 2 and 3 it was suddenly checked by severe snow storms in the mountains and cold weather in the valley.

The cold weather not only proved to be a check to the northward migration, but it cut off the food supply of birds, which had not been seen or only recorded in small numbers during the winter, and compelled them to move southward out of the mountains into the warmer valleys nearer the coast. The most noticeable example of this was the Band-tailed Pigeon. This species had not been seen in the valley during the winter, but immediately after the storm large flocks of them were noticed in the grain-fields and oaks of the valley. The mountain Bluebird had before March 3 been noticed once or twice during the winter; but in the two weeks following March 3 it was common. Among other species whose numbers in the valley were considerably increased by the effects of the storm were the Californian Woodpecker, Golden-crowned Sparrow, Lincoln's Sparrow, Thurber's Junco, Cedar Waxwing, and Western Robin.

The Swallows which had so early ventured upon their northward journey were caught in rough weather. A number were seen on March 3 flying wildly in the pouring rain. However, the quick return of warm and pleasant weather cleared the valley of a large number of winter visitants and by March 10 the swallows had again taken up their course through the valley from southeast to northwest, breaking the wind, as it were, for the great multitude which was to follow.

Before the end of March the northward migration was well under way; Band-tailed Pigeons, Sharp-shinned

Hawks, Red-naped and Red-breasted Sapsuckers, Lewis' Woodpeckers and American Pipits had disappeared on their northward journey; while Say's Phœbes and Vermilion Flycatchers had left the valleys of the coast for their breeding homes on the east side of the mountains. But to fill the vacancies made by these departures there had arrived from the south Texan Night-hawks, Costa's and Rufous Hummers, Arkansas Kingbirds, Bullock's and Arizona Hooded Orioles, Cliff Swallows and others.

The number of arrivals and departures each day was increasing, and by the last two weeks in April the northward movement was at its height. Most of the migrants were moving northwest, parallel to the mountain ranges.

About April 4 the last Cassin's Kingbirds were seen; on the same date the Ash-throated Flycatcher was first noted in Eaton's Arroyo. The Black-chinned Hummingbird, Western and Hammond's Flycatchers, Black-chinned Sparrow, Green-tailed Towhee, Black-headed Grosbeak, Lazuli Bunting, Warbling and Cassin's Vireos, Calaveras, Yellow, Black-throated Gray, Macgillivray's and Pileolated Warblers, and Russet-backed Thrush were present in numbers before April 15. Before this date Lutescent Warblers and Western Yellowthroats had increased their numbers over winter residents to a large extent. California Purple Finches and Ruby-crowned Kinglets had left the valley.

The migration was fast reaching its height; still, a number of summer residents and transients had not arrived. April 25 showed the presence of more species than had hitherto been noticed; over sixty different species were recorded within the radius of $1\frac{1}{2}$ miles from the mouth of Arroyo Seco outside the mountains. Warblers, sparrows and flycatchers were especially abundant. The new arrivals were the Belted Kingfisher, Olive-sided Flycatcher,

Western Wood Pewee, Western Blue Grosbeak, Phainopepla, Townsend's and Hermit Warblers, and the Long-tailed Chat. The Thurber's Junco and the Dwarf Hermit Thrush were the only species which had left since April 15.

Soon after the 25th, however, the great wave of birds began to show signs of decreasing, and by May 5 there had been considerable lessening in the numbers of a good many species. The Belted Kingfisher, the Intermediate, Golden-crowned, Black-chinned, and Lincoln's Sparrows, Green-tailed Towhee, Western Blue Grosbeak, Cassin's Vireo, Calaveras, Lutescent, Audubon's and Black-throated Gray Warblers, had entirely disappeared. There was yet to appear an important factor of the season's migration, and its magnitude was possibly more noticeable because it showed itself in its full strength after the greater part of the general migration had passed. Filling the entire valley with one of the most beautiful forms of bird-life, it was a pleasant sight to everyone but the orchardists. The first individuals of this migration-wave of Louisiana Tanagers appeared during the last few days in April. The birds were common by May 3, and from May 6 to 20 they were abundant everywhere in the valley. Two of the greatest centers of attraction for the mass of migrants were the blossoming grevillea trees and unfortunately, the cherry orchards, whose fruit was then in its prime. Never before had a spring migration filled the valley with such a number of brilliantly-colored birds of the same species. Even uninterested persons remarked the abundance of Tanagers. Happily this was only a migration, and by May 25 the greater part of them had gone, and May 29 saw the last one in the valley.

While so much attention was directed toward this remarkable migration of Tanagers, most of the other migrants had passed on, and all our summer residents had arrived. However, large numbers of Phainopeplas were still in the valley; and had it not been for the presence of so many Tanagers their numbers would have seemed very remarkable. The pepper trees and oaks

were the feeding places of hundreds of these birds, which stayed in the valley until June 10, after which all but the breeding birds had left.

Since the last of February I had been busy watching the ever-changing representation of bird-life, and now could rest and wonder at the great transformation which had taken place. An avifauna only represented by residents and winter visitants had been gradually replaced by summerers. No date could be fixed when the summer visitants appeared and the winter birds departed; no definite line drawn between migratory and sedentary birds; but from the time when the first Violet-green Swallow obeyed the natural law which told it to return to its summer abode, until the last Phainopepla had reached its breeding home in our fields, there had been an ever-changing avifauna in the San Gabriel Valley.



JOHN M. WELCH of Copperopolis, Calaveras Co., writes of the Phainopepla as a common summer resident at that place. They were first observed in May, their single bell-like note acting as an index to their location. He says: "While the notes of these birds are heard all through the hills, each pair have their own foraging grounds which are not intruded upon. I endeavored to locate some of the nests but the female was probably on the nest and the male would not approach it while I was near and I could never detect him taking food. I watched for their broods but could never observe them. The birds have been gradually disappearing since the first of September but I have heard occasional notes up to the first of November."

CONTRIBUTIONS for the next issue of the BULLETIN are desired promptly. To fill the 16 pages bi-monthly means that you, as a contributor, must collect your field notes and prepare them for publication at once. No note of interest is too short to find a place in our BULLETIN and we believe that those who have heretofore been discouraged at the time required to secure publication will appreciate the prompt appearance of their articles.

Nesting of the Fulvous Tree Duck.

BY A. M. SHIELDS, SAN FRANCISCO.

[Read before the Northern Division of the Cooper Orn. Club, Jan. 7, 1899.]

WHILE the Fulvous Tree Duck (*Dendrocygna fulva* Gmel.) is well known to nearly, if not all, our leading authorities and has been made the subject of extended notes by some,—notably Baird, Brewer and Ridgway, very little has been known of its nesting habits. I have made a special study of our Duck family and have personally taken sets of eggs of eight species, but it was not until June of this year (1898) that I had the good fortune to discover the nest of *D. fulva*, and as is the rule with desirable oological finds, my "take" was quite unexpected.

Mr. Brewer states in his notes that this duck occasionally visits the Island of Trinidad (at intervals of several years) and while on the island raises its young, several broods sometimes being raised during a season, but he is apparently unable to definitely state whether the bird nests upon the ground or in hollow trees as does its black-breasted congener. Col. Grayson discovered this duck in the vicinity of Sonora, Mexico, where it was fairly abundant during the breeding season. He was informed by natives of its nesting in that locality though he omitted to state other than that "the birds were said to lay from 12 to 15 pure white eggs."

My impression is that this bird is among the most variable and cosmopolitan in its nesting habits of any of our ducks. While in the central part of the state during the early part of last June, I was collecting in an immense tule swamp containing a rookery of White-faced Glossy Ibis and Black-crowned Night Herons when I was surprised at seeing a large number of Fulvous Tree Ducks throughout the swamp. The birds were either in pairs or multiples of pairs, and although the sexes are usually so similar as to make identification at a little distance impossible, I could, on this occasion, readily locate the females by the fullness of the abdomen. The ducks were much interested in our movements, frequently circling around close to us and indicating their displeas-

ure by continually uttering their peculiar whistle. As these actions were suggestive, my assistants and myself forsook the Ibis rookery and commenced a systematic search among the tules for possible nests of *D. fulva*. After a vain search of several hours we decided that it was either too early or else the birds were not nesting there.

June 25 found us again on the ground, the first pleasant observation being that instead of pairs, many single ducks (presumably old drakes) were scattered here and there; also that when a small group of birds were seen it was as likely to contain three or five ducks as two or four, all this indicating nests and setting birds—somewhere. We were not long in again penetrating the dense tules where we searched diligently for hours, but about the only nests found were dozens of the White-faced Glossy Ibis, which, at this time, nearly all contained four little jet black balls of down. Here I would mention the apparent apathy of the old Ibis toward their young; the very instant we approached the nest the old bird would rise into the air and off she would go a mile or more to a feeding ground and frequently not appear while we were in the vicinity. A few weeks before, while collecting Ibis eggs, the parent birds continually hovered overhead or near-by and as soon as we were a few yards from a nest just robbed, the old bird would settle down on its edge and there remain in silence until lost to view among the thick rushes.

After a while I flushed a Redhead from her floating palace of dry tules and down, the nest containing 15 eggs which I soon discovered were not all alike. Twelve were undoubtedly those of the Redhead but three were different from anything I had ever seen and were slightly smaller, opaque, slightly pyriform and of a chalky appearance when compared with those of the Redhead. I instinctively decided that these three strange eggs were those of the Fulvous Tree Duck. Shortly after this

one of my assistants found a floating nest containing six large white eggs and one small one; the nest and its six large coarse-grained eggs I at once identified as those of the Ruddy Duck, while the seventh resembled the three strange eggs of the Redhead's nest. To make a long story short we found six or eight nests of the Redhead and Ruddy Ducks and over half of them contained one or more of the strange eggs, but search the tufts as we might not a single nest of the Fulvous Tree Duck could we find. This was unaccountable for the birds were certainly laying and the parasite eggs were theirs, and I found myself wondering if it were not probable that the birds being accustomed to nest in hollow trees, and not having such facilities at hand, had abandoned the idea of having nests of their own and adopted the method of the Cowbird in rearing its young.

As the afternoon was advanced we gave up for the day and remained over night at a farm-house a few miles from the swamp. Starting early next morning to search a different locality, the place selected was an extensive strip of high grass growing in the damp swampy ground and sometimes in several inches of water. The grass was from two to three feet high, of a variety commonly known as "sword" or "wire" grass and covered an area of perhaps one hundred acres of low land between the deep water and the higher ground a few hundred yards back. Just as we were alighting from the wagon on the edge of the swampy area I saw a Fulvous Tree Duck flying from the swamp. After a few circles she dropped down among the dense grass not 300 yards distant, and I, not stopping to put on my wading boots but keeping my eye on the spot where she had settled, quickly approached and when within a few yards I was delightfully shocked by a flutter of wings and the sight of the old bird rising and winging a hasty retreat. I reached the nest and what a thrill at the sight,--there in the midst of a little vacant square of four or five feet was a beautifully built nest, composed entirely of grass, about six inches in height and containing 19 beautiful white eggs! I immediately saw by comparison that

my surmise as to the identity of the strange parasite eggs found the day before was correct.

The nest was situated in the center of a little open spot in the grass; the open area had evidently been created by the bird in her quest for building material, for she had proceeded to pull up or break off the grass immediately adjacent as her nest grew higher and larger, until the nest finally occupied a position in broad daylight as it were, although it is not improbable that when the spot was selected it was well hidden by overhanging and surrounding grass. I was not long in securing this nest and eggs, after which we began a systematic search through the high grass and in a short time I had found my second nest constructed similarly to the first but a little better hidden, being under an overhanging bunch of grass which furnished a slight covering. This nest contained *thirty* eggs, deposited in a double layer, and if the first set of nineteen was a surprise what shall I say of this?

We subsequently found about a dozen nests, all similarly situated and most of them containing from 17 to 28, 30, 31 and 32 eggs. The smallest set found was of nine and another of eleven eggs, both evidently being incomplete as the nests were not finished and incubation had not commenced. There are but two ways in which to account for the remarkable number of eggs in the sets; either the Fulvous Tree Duck possesses greater fecundity and is much more prolific than any other known wild duck, or several females frequently occupy the same nest. As to which of the above theories is correct, and whether their habits in this respect differ in this country from those in more southern climes, I am of course unable to state. While I am inclined to the belief that one duck generally contributed the entire quota of the large sets, yet the contrary would not surprise me, as the very fact of their depositing eggs at random in nests of other species demonstrates their "easy conscience" in such practices.

The nests were in main constructed of wire grass and sparsely lined with down and feathers; the eggs were invariably

deposited in two layers and are of a pure white color, and as compared with the eggs of other ducks, possess a rather rough shell, sometimes even approaching a chalky appearance and being frequently slightly pyriform in shape. The measurements vary from 1.35x1.98 to 1.65x2.20 inches, the majority of eggs being a mean average of these extremes. The eggs partake of the characteristics of both those of the goose and duck, but this is not remarkable when it is remembered that the Tree Ducks constitute a family supposed by some to have originated ages ago from the hybridization of the goose and duck. They are equally at home in an alfalfa patch (about dusk) or in a lake of water, and are entirely at home in an oak forest not far from the breeding swamp, where they are said to assemble for the purpose of feeding on acorns.

I regretted my inability to visit the breeding site of these birds a month or two later in order to study their life history, but feel assured that immediately upon the young birds being able to fly, the parents assemble their clans

and depart at once for their southern home, as I have never seen *D. fulva* in California later than September, after which they are entirely absent from our shores until the following spring when they return in limited numbers. That well known ornithologist, Mr. W. Otto Emerson, of Haywards, has kindly favored me with his notes on this species which would indicate that the birds also nest in trees in this state, from all of which we may consider *D. fulva* a strange bird in more ways than one—equally at home on land or water and wholly unbiased in its nesting sites and feeding grounds. Mr. Emerson's notes are as follows: "On May 23, 1882, while collecting with Wm. C. Flint at Lillie's ranch near Tulare Lake I noticed a Fulvous Tree Duck sitting in the entrance hole of a large white oak near one of the ditches, but it was out of the question to reach it. Again on May 26 another was located sitting on the edge of a hole high up in a white oak. Lillie's ranch is nine miles from Wildflower, Tulare Co. and four or five miles southeast of the lake."

A New Race of the Brown Towhee.

BY RICHARD C. MCGREGOR.

Pipilo fuscus carolæ,¹ subsp. nov. NORTHERN BROWN TOWHEE.

Closely related to *P. f. crissalis* but distinguished by grayer and more uniform color of upper parts, much paler throat patch and slightly longer tail.

Type, ad. male (No. 2200, Coll. R. C. McG; Battle Creek, California, Nov. 7, 1898). Wing, 4.01; tail, 4.49; tarsus, 1.03; exposed culmen, .62.

The characters assigned to this form are seen at a glance, while a comparison of a series from Battle Creek with birds from the central part of California, show the under parts to be slightly paler and clearer in the northern bird. The only specimen in my collection which approaches *carolæ* is a skin from San Geronimo. Four young birds from Redding, taken in August, and one from Battle Creek in October, are very much like young examples from Santa Cruz.

AVERAGE MEASUREMENTS TAKEN FROM SIX EXAMPLES OF EACH FORM.

	Wing.	Tail.	Tarsus.	Exposed Culmen.
<i>P. f. crissalis</i>	3.76	4.32	1.08	.56
<i>P. f. carolæ</i>	3.76	4.41	1.03	.59

Fifty-five skins have been examined from the following localities: San Geronimo, 3, St. Helena, 4, Palo Alto, 20, San Jose, 1, Livermore, 1, Gilroy, 1, Banta, 1, Ione, 1, Morgan Hill, 1, Santa Cruz, 2, Placerville, 1, Drytown, 3, Ukiah, 2, Cahto, 3, Redding, 4, Battle Creek, 7.

Battle Creek, the type locality, forms the boundary line between Tehama and Shasta Counties. My towhees were collected on either side of the creek, less than two miles from the Sacramento River. Ball's Ferry is the nearest post-office.

¹. Named for Charlotte C. McGregor.

WILLIAM S. COBLEIGH.

THE Cooper Ornithological Club has suffered the loss of an esteemed member in the death of Mr. William S. Cobleigh, who was perhaps best known to our readers as a worker in Illinois ornithology, although for three years past he had been an active member of the Club. His excellent writings on the birds of his native State, Illinois, in many of the older magazines have made his name familiar to all the older workers. In August 1897 he left California for the gold fields of Alaska, where, a year later he was stricken with typhoid fever and died at Dawson Sept. 14, 1898.

The "Klondike Nugget" says: "William S. Cobleigh, formerly assistant postmaster at Skagway, who came to Dawson in July last and who recently died at St. Mary's Hospital, was buried Sunday afternoon (Sept. 25) in the Dawson cemetery under the auspices of the Order of Elks, attended also by members of the Masonic Fraternity and Knights of Pythias, of which organizations he was a member. In life he was a magnificent specimen of physical manhood, being over six feet in height, and in good health, weighing 225 pounds. Contracting typhoid fever, despite the most diligent attention medically and otherwise he succumbed to the dread disease. At the cemetery a simple but beautiful service was rendered, the Rev. R. J. Bowen officiating. Bro. Captain Jack Crawford, the famous poet scout, made some feeling remarks after which Bro. George Noble of Seattle Ledge of Elks sang "Nearer My God to

Thee," his magnificent voice and the beautiful rendition of this hymn touching the hearts of all. It is expected to forward his remains to his former home at the opening of navigation next spring."

William S. Cobleigh, whose portrait we present, was born in Pekin, Ill., August 30, 1868, being 30 years of age at the time of his demise. In 1880 he moved to Peoria, receiving his education in the public schools of that city

and Pekin, after which he spent two years at Knox College, Galesburg Ill. In 1889 he removed to Canton, Ill., where he followed farming until his departure for California in 1897. He was married to Miss Jessie Justus of St. Cloud Minn., on Dec. 25, 1892, but no children survive him. He leaves a wife in Peoria, Illinois, father, mother and sister in Los Angeles and a brother in Canton, Ill. He was an authority on the birds of Illinois and donated his large collection to the Peoria Scientific Association a few

years since.

At a meeting of the Cooper Ornithological Club held Nov. 5, the following resolutions were adopted:

Whereas, we have learned of the death of our esteemed co-worker and fellow member W. S. Cobleigh at Dawson City, September 14, 1898, be it

Resolved by the Cooper Ornithological Club assembled, that it is deeply conscious of the loss of a loyal member and conscientious worker, and be it further

Resolved that the ornithological ranks



have suffered the loss of an ardent bird student,—one whose whole-souled admiration for the varied charms of Nature was outwardly reflected in his generous and impulsive disposition, and be it further

Resolved that these resolutions be enrolled in the minutes of this meeting and a copy transmitted to the family of our deceased member.

Thus has another naturalist joined the "innumerable caravan" which, let us hope, leads to a keener perception of those mysteries of nature which we would all attain.

C. BARLOW.



Nesting Observations on the Black Phœbe.

BY F. B. JEWETT.

[Read before the Southern Division of the Cooper Orn. Club, Jan. 8, 1898.]

MY observations have been confined to one pair of birds which have nested on my barn for some eight years past. While I cannot state positively that it has been the same pair during the entire term I am led to believe that such is the case. During the first two or three years the birds changed the site of their nest frequently, probably owing to some disturbance, for afterwards when I guarded them against interference they chose a site which they have occupied ever since. The nest they now occupy is situated on the north side of the barn under the ridge-pole, almost inaccessible except with a long ladder. On account of this, my observations of the inside of the nest have been by means of a mirror attached above.

Both birds assisted in the construction of the nest, one working while the other kept watch. Both also incubated, dividing the work equally, as nearly as I could judge. In most cases the eggs were laid on consecutive days, incubation commencing immediately after the laying of the last egg. The young grew at a great rate and kept the old birds busy from morning to night bringing food. They remained in the nest on an average about two weeks, or until it was too small for them. After leaving the nest the old birds continued to

feed them for some time. It was a ludicrous sight to see five fluffy youngsters ranged one after the other on the rose-bush stakes, with quivering, outstretched wings and constant plaintive cries waiting their turn to be fed by the parents. The old birds took them one after another, never seeming to make a mistake as to whose turn it was next.

The youngsters were voracious little things; watch as long as I would I never saw one sated. After feeding them as long as they thought advisable, the old birds abandoned the young and started a new brood. In this way three broods were generally reared in each year, the first and second usually consisting of five, and the last of four birds. The youngsters never remained long after they had been turned adrift, usually disappearing on the third day.

The birds have used the same nest for four years, tearing out the old lining and replacing it with new at the beginning of each season and mending places that had been broken. In 1896 eggs were laid April 3, 4, 5, 7, 8, and hatched on April 21, 22 and 23. Young birds left the nest May 9 and were abandoned by the old birds on May 27. One of them became entangled in the horse-hair lining of the nest, fell over the side, and was strangled to death; his remains are still hanging there as a reminder of the fate of a too precocious Black Phœbe. In 1897, by March 29, the old birds were busy tearing out the old lining and replacing with the new. Eggs were laid April 7, 8, 10 and 12; incubation began April 15, the eggs hatched on May 1 and the young left the nest May 15. I am under the impression that this brood fell victims to cats as they disappeared suddenly before they were able to take care of themselves.



Mr. R. B. MORAN, of San Luis Obispo, will present through the Club a paper on the nesting habits of the Black Oyster-catcher, as observed on the coast of San Luis Obispo County. He remarks the tameness of the birds and hopes to secure some interesting photographs of them next season.

BULLETIN
of the
Cooper Ornithological Club
OF CALIFORNIA.

Published bi-monthly at Santa Clara, Cal., in the interests
and as Official Organ of the Club.

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Business Managers.

Subscription, (in advance)	One Dollar a Year.
Single Copies,	25 Cents.
Six Copies or more of one issue,	12½ Cents Each.
Foreign Subscription,	\$1.25.
Free to Honorary Members and to Active Members not in arrears for dues.	

Advertising rates will be sent on application.

Advertisements and subscriptions should be sent to the
Business Managers.

Exchanges should be sent to the Editor-in-Chief.

Notes of interest and striking ornithological photo-
graphs for illustration are solicited from members.

When extra copies are desired, they should be ordered
at the time of communicating the article.

Write plainly and confine your article to one side of the
sheet.

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EDITORIAL NOTES.

To those who have followed the reports of the Cooper Ornithological Club for six years past our BULLETIN will need no introduction. It but marks a new era in the publication of the Club's proceedings, for which we have hitherto been dependent upon space afforded by current magazines, and to whose publishers the Club acknowledges its indebtedness. The service thus secured has been as generous as we could consistently expect, but our increasing needs have proven this method of publication wholly inadequate. The BULLETIN has taken form in response to a general demand, and the initial issue represents fairly the standard which shall characterize the numbers about to follow.

The BULLETIN will occupy a sphere necessarily its own; its object being to represent generally the great West, and primarily the Cooper Ornithological Club. It is conceded that the West is rich in its possibilities of new discoveries, both in faunal forms and data regarding the life histories of many species, and through the field work of a widely distributed corps of members, the Club hopes to present many papers of special value to science. The support of all who are interested in securing these results will be generously recipi-

located and the BULLETIN will be found not only valuable to members of the Club and to Californian students of birds, but will prove indispensable to Ornithologists and Oologists of the entire country who would keep in touch with the progress of science in the great West. Descriptions of new birds, and their nests and eggs will be contributed from time to time by active field workers. Let us record your prompt response to these efforts.

We present to our readers with this issue a portrait of that veteran Californian worker, Dr. J. G. Cooper, which is here published for the first time. The biographical data secured by Mr. W. O. Emerson, an old friend of the Doctor's, was collected in part some time since by Dr. Cooper, who, in anticipation of his decline, had brought together the results of his life's work. Dr. Cooper, now 68 years of age, is partially paralyzed and enfeebled, and as the winter of his well-spent life draws near, his legion of friends will wish him days of sweet peace and immunity from pain.

Mr. Shields' contribution on the rather remarkable nesting habits of the Fulvous Tree Duck in this issue, imparts to science many interesting facts heretofore unknown, notably the manner of nesting and the number of eggs deposited by this species. It serves to illustrate the opportunity for research which lies within the grasp of almost every bird student.

Our cover design, representing the California Condor, is the production of Mr. W. Otto Emerson, one of California's favored bird artists. Mr. Emerson's home is adorned with many charming bird paintings from his own brush and which show the elegance and grace of the careful observer.

Short notes are solicited from members, who will be surprised at the many items of interest they will discover in the past season's field notes alone. These should be sent in immediately. We shall make this an interesting feature of the BULLETIN, although many notes for this issue are inadvertently crowded out.

The San Francisco *Chronicle*, of Nov 26th, prints under the caption "A Successful Crusade against Jays and Hawks" an account of a game hunt held recently by the Petaluma Sportsmen's Club, when its members turned out on a raid against all hawks and bluejays. The joint bag showed 82 bluejays and 51 hawks "of various kinds" slaughtered on the plea that "each would have destroyed at least five quail's eggs during the next breeding season." The ignorance displayed by this star organization is deplorable in the extreme, and each member should enrich his library with a few of the government publications on the raptorial birds and bluejays and their food habits, thus rendering himself more capable of exercising the discretion necessary to the proper use of a gun. The BULLETIN stands for bird protection, and will strenuously oppose wanton slaughter at all times regardless of its source. We highly commend the excellent work done and the fearless stand taken in this matter by *Recreation* of New York City.

**Officers of the
Cooper Ornithological Club, 1890.
Northern Division.**

W. OTTO EMERSON President
ERNEST ADAMS Vice President
C. BARLOW Secretary
D. A. COHEN Treasurer

Southern Division.

A. I. McCormick..... President
F. S. Daggett..... Vice President
Howard Robertson..... Secretary
H. S. Swarth..... Treasurer

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Official Minutes of the Southern Division,

Октябрь.

The Division met at the residence of H. J. Leland in Los Angeles (October 7). Mr. H. J. Rising was elected to membership. The resignation of H. A. Young of Pasadena was accepted, and the name of Harold (A) of Carlton was proposed for active membership. A paper entitled "Notes on a Trip to the Lower Fork" by H. J. Leland was read. Mr. Ingalls read a few extracts from a letter received from Mr. Joseph French, now at Keweenaw, Mich. Preparations were made for an evening meeting at Mr. Wilson's home, October 10th. It was decided

The Annual meeting meeting of the San Joaquin Division was held at the Union Station on V. W. Owen being elected chairman for one year. Mr. Harold Jay of Lodi was elected a life member in the Club. Mr. L. V. Howard made a few remarks regarding the game laws of California pertaining to the Bear and Mountain Lion and suggested that such actions be started out and on the game authorities requesting that the season be shortened. It was decided to call the meeting over until the next meeting adjourned.

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The Convention passed a resolution of condolence of 2½ minutes to the family of President John Kennedy and the members of the family of the late Senator Robert Kennedy.

The intelligent and well-informed
and well-educated public, who are
the best friends of the country,
are a constant source of strength to
McKinley, and will be to him.

pointed to draft a set of resolutions including the sense of the Club in this regard. The meeting adjourned to meet in December when the annual banquet will be held.

The Annual meeting was held in Los Angeles Dec. 20 with President McMurtry in the chair, and seven members present. The treasurer's report showed funds on hand. A letter from Mr. R. J. Hatch of Remondale gave full announcement of the death of his son, J. Marshall Hatch, a club member, on May 1, 1918, and the secretary was instructed to draft resolutions of respect. The name of W. E. Fisher of Los Angeles was proposed for membership. Ed Heets for Dux, was elected as Vice-President, A. J. McMurtry, Vice-President, H. C. Baggett, Secretary, Merritt Presbyterian, Texas City, H. C. Smith. A Banquet was held with the following guests: Mrs. John Carpenter, Annual Regent, Merritt Presbyterian Church, Mrs. John Carpenter, Mr. John F. Johnson, Mr. J. Edward Sumner, Chairman, Board of Directors of the Merritt Presbyterian Church, and Mrs. Sumner, from the Merritt Presbyterian Church.

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Official Course of the Captain General.

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I am anxious to tell you that we are very glad to receive a fine offer extending from us to you. I think you will be very well for us. I hope it is better. It is a mixture of elements and I think it is a good mixture. There has been no such understanding hitherto. We have agreed that

the meeting adjourned.

NOVEMBER.

The Division met at the residence of Wm. R. Flint in Oakland with sixteen members present. The name of Theodore J. Hoover of Stanford University was proposed for membership. Nominations for the offices of President, Vice President, Secretary and Treasurer of the Northern Division for 1899 were made, the election to take place at the January meeting.

The Secretary reported the death of Mr. W. S. Cobleigh, a club member, at Dawson City on September 14, whither he had gone in the fall of 1897. Resolutions were adopted in his memory and will be found in another column. A vote of thanks was extended the Michigan Ornithological Club for a file of its Bulletin. Publishing propositions from the *Osprey* and Michigan Ornithological Club were declined. Mr. Jno. W. Daniel's proposed magazine was named as temporary official organ.

A discussion followed concerning the Club printing its own Bulletin, the Secretary being instructed to prepare and mail a general circular to all members. A special meeting for the purpose of further considering the matter was called for December 3. The Southern Division report of October 7 was read and filed.

Papers were read as follows: "Some of the Birds of Santa Cruz County" by W. O. Emerson; "Suggestions for Individual Work" by R. C. McGregor.

Adjourned.

DECEMBER.

A special meeting was held December 3, at the residence of W. O. Emerson at Haywards to consider the matter of the Club issuing a Bulletin, the same to serve as sole official organ. A Committee consisting of C. Barlow, W. O. Emerson, D. A. Cohen and John M. Willard was named to draft complete resolutions and plans for publishing a bi-monthly bulletin. A report from the Southern Division Committee was read and embodied in the resolutions. The resolutions as adopted provide for a 16-page bi-monthly bulletin, the Board of Managers to consist of an Editor-in-Chief, one Assistant and a Business Manager from the Northern Division and one Assistant Editor and Business Manager from the Southern Division. The adopted resolutions are

ordered submitted to the Southern Division for endorsement. The bid for printing was awarded to C. A. Nace of Santa Clara.

JANUARY.

The annual meeting was held at San Jose, January 7. Theodore J. Hoover was elected to membership. Officers for 1899 were elected as follows: President, W. Otto Emerson; Vice-President, Ernest Adams; Secretary, C. Barlow; Treasurer, D. A. Cohen. Two Southern Division report were read and bills for \$7.15 ordered paid. Resolutions establishing the BULLETIN were passed. Papers were read: Nesting of the Fulvous Tree Duck, A. M. Shields; Nesting of the Santa Cruz Jay, R. H. Beck; A Day With the Raptore, Ernest Adams; and one paper from the Southern Division. The March meeting will be held at Alameda.



Protective Coloration.

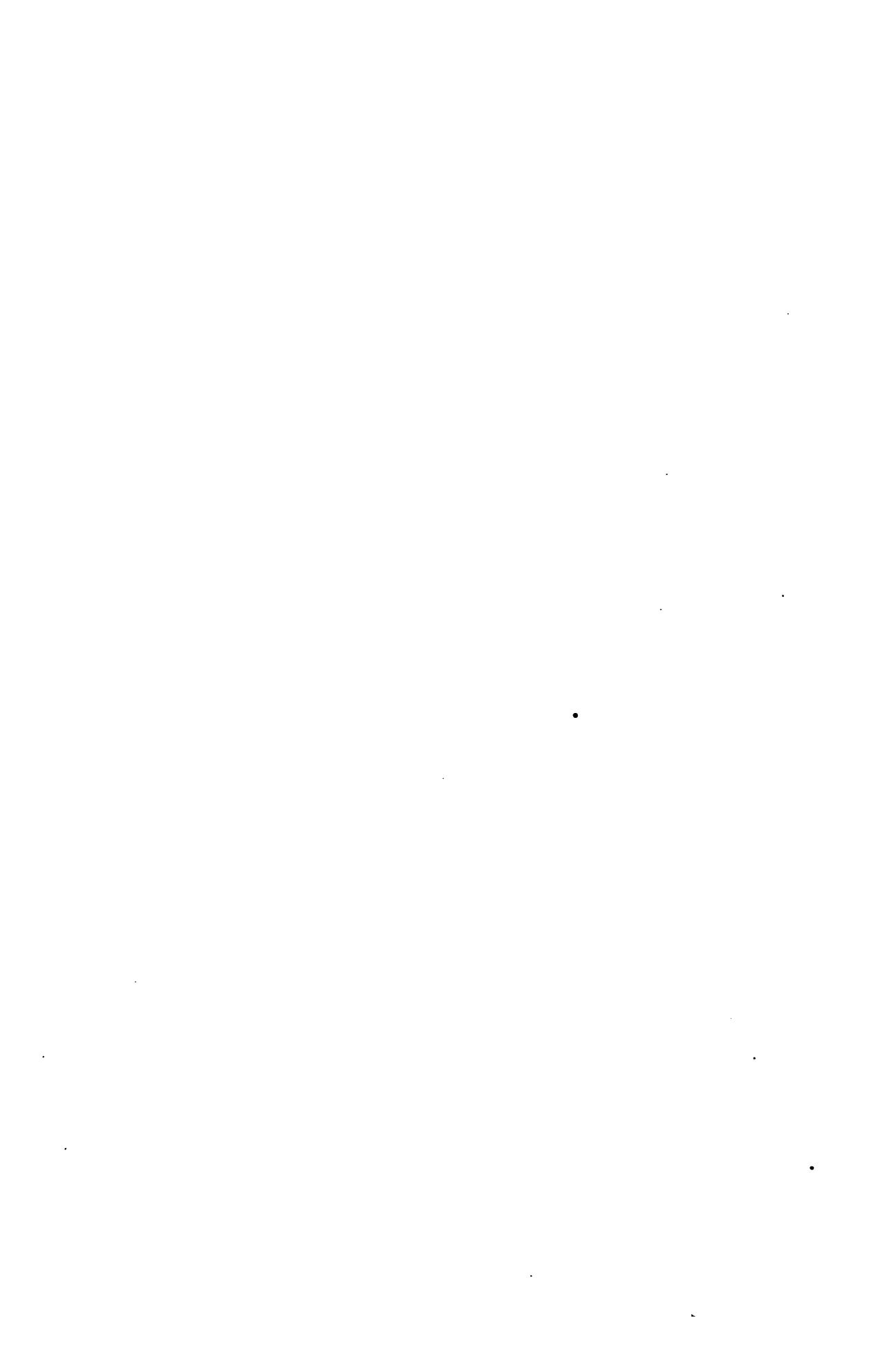
At the time of my visit to San Jose del Cabo, Lower California, May 1, nearly all of the plants were in foliage. There are two shrubs, however, *Erythrina corallodendron* and *Fonquieria spinosa*, whose red flowers come out before the leaves. The resemblance of these flowers to a red bird was marked and several times I started, from a distance of seventy-five or one hundred yards, to carefully approach a bunch of scarlet flowers in hopes of destroying a *Cardinalis* or *Pyrrhuloxia*. I also made the error of taking blossoms for birds and believe this instance of protective coloration is worth bringing to notice, though I am unsettled as to which is protected. R. C. McGREGOR, U. S. Fish Hatchery, Battle Creek, Cal.



AT THE recent Congress of the A. O. U. in Washington, D. C., the song of the Brown Thrasher was reproduced through the graphophone. Mr. Barlow is in receipt of several graphophone records from Lieut. Jno. W. Daniel Jr., of Lynchburg, Va., which were made by Lieut. Daniel in Washington, and which quote some interesting portions of the A. O. U. programme and other matters of ornithological interest. These were reproduced at the meeting of the Northern Division of the Cooper Club, January 7.



CALIFORNIA CONDOR.



Exchange Notices.

Each member of the Club, not in arrears for dues, is entitled to three exchange notices of 30 words each during the year.

Any one having duplicate sets of California eggs who cares to exchange for same, please address, LEE CHAMBERS, Santa Monica, Cal.

WANTED—Last edition Coue's Key for your selection from my list California sets and skins to value of \$20.00 per Taylor's and Webster's catalogues respectively. D. A. COHEN, Alameda, Cal.

TELEGRAPH RELAYS—I have two Western Union relays, almost new for sale or exchange. Ridgway's "Nomenclature of Colors" wanted. C. BARLOW, Santa Clara, Cal.

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Published in the Interests of Californian Ornithology.

BULLETIN
- of the -
COOPER ORNITHOLOGICAL CLUB.
OF CALIFORNIA.

VOL. I.

Santa Clara, Cal., March-April, 1899.

NO. 2.



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The American Ornithologists' Union
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BULLETIN

— OF THE —

COOPER ORNITHOLOGICAL CLUB.

A BI-MONTHLY EXONENT OF CALIFORNIAN ORNITHOLOGY.

VOL. 1. No. 2.

Santa Clara, Cal., March-April, 1899.

\$1.00 a Year.

The Rhinoceros Auklet at Catalina Island.

BY JOS. GRINNELL, PASADENA, CAL.

[Read before the Southern Division of the Cooper Orn. Club.]

TAKing advantage of the recent Christmas vacation, I spent several days at Catalina Island, which lies about 25 miles off the coast of Southern California. Although it was the last week in December, when the hills are generally beginning to take on a green hue, I found the landscape very dry and apparently not very inviting to most land-birds. However, in the ravines and in the wash extending back of Avalon, small birds, such as they were, were very numerous.

In the brush two subspecies of Fox Sparrows and a race of the Spurred Towhee were abundant and made a constant racket, scratching among the dead leaves. The noise that a pair of Fox Sparrows can produce from a pile of dry twigs and leaves is really remarkable and out of all proportion to the size of the bird. I saw a whole flock of quail hurry through a thicket in the bottom of a ravine without half the clatter that a sparrow on the hill-side, fifty yards away, was raising. Everyone who goes hunting at Catalina is ever on the lookout for foxes, which are numerous on the Island, and there is scarcely any one who does not stop and listen with gun ready for use, when he hears the rhythmic rustle of dry leaves among the dark bushes ahead of him. After all, these little birds may, at least on Catalina, merit with propriety their name of "Fox" Sparrows.

Besides the sparrows, the most abundant, and by far the most noticeable

birds, were the familiar Audubon's Warblers. They were everywhere, and individuals were to be seen even on the beaches within a few feet of the surf, as usual, busily engaged in catching flies. Dusky Warblers and Vigor's Wrens were fairly numerous, but very quiet and secretive, a mood in which they are seldom found. Possibly the next rain, if it ever comes, will dispel their gloom, and restore their naturally good spirits. At any rate I hope they will be more sociable next the time I visit Catalina, for I succeeded in obtaining only ten specimens of each, where I had expected to secure a good series of twenty or thirty.

Mockingbirds were present in moderate numbers, but were likewise quiet. Indeed, I did not hear a word from them, except their ordinary harsh call-note. They, in common with the linnets, were feeding on the ripe red fruit of the cholla cactus. Possibly some of the cactus prickers, which render this fruit so distressing to persons when they eat it in a hurry, had got stuck in their throats, so they could not sing. There is a good opportunity for any aspiring ornithologist to make a new species out of the Catalina Mockingbird. All that I saw, had bright red faces, which is quite unusual in this genus, but the cactus may have had something to do with this also! However with the cactus factor acting on the Catalina Mockingbirds for several centuries, a truly distinct species may

be evolved, with a red face and no song.

As I was duly informed that no one was allowed to kill mockingbirds on Catalina, I, of course, did not do so. However, I succeeded in measuring the middle toes of several specimens, and they agreed in being longer than in the case of our Pasadena mockingbirds.

I secured one very interesting specimen, a partial albino Dusky Warbler, *Helminthophila celata sordida*. Several of the wing feathers and many of the body feathers are of a very light yellow tint, in marked contrast with the normal dark olive green of the rest of the plumage. Hummingbirds were remarkably numerous about the blossoming eucalyptus trees in Avalon. They were the Allen's Hummingbird, *Selasphorus allenii*. It is curious that this species, occurring on the adjacent mainland only in the spring and fall migrations, should remain throughout the winter on Catalina, in the same latitude and only twenty-five or thirty miles distant. As it breeds commonly on Catalina, this hummingbird is undoubtedly the resident form, while the Anna's Hummingbird is the resident species around Pasadena.

Among the land-birds, I was surprised not to find any Song Sparrows, Horned Larks or Meadowlarks, all of which are more or less common on Santa Barbara and San Clemente Islands.

After collecting small birds for four days very successfully, and, as I was told by a tourist, robbing the landscape of half its beauty, I determined to start in robbing the water-scape. So, in the afternoon I boarded the "Fleet-wing" for a cruise out around Seal Rock to see what there might be in the line of water birds. I was very successful in shooting away some twenty-five shells, but rather disappointed in securing but one bird, a sickly loon. However, the fact that this loon was sickly, was rather of a blessing, for the bird was delightfully lean, and the skin did not require the usual amount of cutting and scraping necessary to remove the fat which is present in such great quantities on a normal loon skin. This trip, though not bringing many specimens, taught me one thing, that a noisy,

wheezy, coughing gasoline launch is the last vessel to choose to hunt birds on. They almost all departed before the boat was within long range. Another thing, distances on the water appear a great deal shorter than they really are. One member of our party persisted in shooting at shags which were fully 150 yards distant when he declared they were within fifty yards. Shags are hard to kill, anyway. Seventy-five shells were fired and two birds dropped.

On Wednesday, December 29, my friend, Mr. Ferguson, came over to Avalon, and we decided to take a trip after water birds the next day. We secured a very neat looking round-bottomed boat, with two pairs of oars and row-locks, and just big enough for two. It had not been used for some time but the boatman assured us it would not leak. Accordingly we started early the next morning, but we had scarcely got beyond Sugar Loaf, before the boat was half full of water, more or less, and from that time on, we had to bail it out with a battered tomato can every few minutes. But such little things should not disturb an enthusiastic bird collector.

Before we had gone as far as White's Landing, I thought I discerned a stranger in the distance, and sure enough a closer view proved that we were in pursuit of a rare bird, none other than the Rhinoceros Auklet, with which this paper is supposed to mainly deal. With such a prize before us, we rowed for all we were worth, and soon were in fair range of it. A shot from a rocking boat at a target on the rolling waves, is not the easiest imaginable, and ours failed, or rather, the instant we fired, our Auklet disappeared in the water. We then rowed with "might and main" to the spot where the circling ripples told us the bird had gone down. We waited breathlessly with guns cocked. One of us was supposed to watch for him on one side of the boat, and one on the other, but after each had scanned his own horizon, neither would trust the other, and we really watched sharper on the opposite side of the boat than on our own. It was an exciting moment, for we had no idea

where the bird would come up. After a full minute, we began to cool a little, and such conjectures were made, as that he was wounded and had dove to the bottom of the ocean and was clinging to the kelp. But presently, fully 300 yards away, ahead of us, peacefully rested our bird, apparently none the worse for being shot at, but with his eye on us. We, of course, pulled for him, but he was aware of our intentions by this time, and dove before we were anywhere within range. This time we rowed far ahead of where he went down thinking to meet him when he rose, but he must have been able to see the boat on the surface of the water, for he appeared far to our right. We went for him again, going to the spot where he disappeared and thinking that he might be getting winded. After waiting an unusually long time we happened to look back of us in the dark reflection of the Island, and there he was far away on the waves. He had doubled back diving right under us. We went cautiously toward him, getting rather close, but still too far for a shot before he disappeared. This time we thought it better policy to stay right where we were, hoping that he might try to double back on us again, and sure enough, in about half a minute he came up to our left, not thirty feet away, and two charges of No. 8 met him squarely, and we had bagged, or rather, carefully stowed in the collecting basket, our first Rhinoceros Auklet. We spent the rest of the day chasing Auklets, each time with about the same experience, but nearly always, if we stuck to it, finally getting our bird. We worked harder that day, than either of us had before for many months, as blistered hands testified, but I felt well paid, as the result was ten fine specimens of the Rhinoceros Auklet, besides a couple of Am. Eared Grebes and a Pacific Loon.

The manner and pose of the Rhinoceros Auklet, resting or swimming on the water are quite different from those of any other sea bird met with around Catalina. It is short and chunky with head drawn in close to the body, leaving scarcely any tract that might be called a neck. The water line comes

up to about the lower edge of the wings when closed against the body, so that the bird does not rest lightly on the water like a Gull or Phalarope. The head is held on the same line as the body directly out in front, so that the top of the head and back are on the same level. The whole bird at a little distance looks most like a block of wood floating on the water. We did not once see one flying. They all preferred to dive. One which was shot at and probably slightly wounded, attempted to take flight but failed to get clear of the water, and after dragging along the surface for several feet, instantly dove. The great ease and rapidity which is shown in diving and traveling under water is remarkable. When we showed a specimen to the boatman, he said that it was called a "fool-hen," because it would not get out of the way, but generally allowed a boat to run right over it. However I think the term "fool-hen" appropriate, for they certainly fooled us many times. We heard no note and there was never but one in sight at a time. They were mostly seen about a quarter of a mile from shore. The food consisted entirely of a small yellow crustacean, which filled their gullets. We saw none of these anywhere near the surface of the water, so they must have been caught by diving to a considerable depth. The water where the Auklets were feeding was from thirty to one hundred fathoms in depth. The Rhinoceros Auklet is probably a regular common winter visitant along our coast.

• • •

MR. A. P. RIDINGTON writes from Santa Barbara: "While descending the road over the San Marcos Pass here recently, we came upon a Condor who allowed us to approach within fifty yards or so before taking wing. I opposed any attempt to secure the bird, thinking that the possibility of an egg in the future might be of more value than the skin. We can almost guarantee at least the *sight* of this species in a day's trip down the Santa Ynez range."

Prominent Californian Ornithologists. W. OTTO EMERSON.

MANY of the oologists and ornithologists of today will remember tenderly the time when the writings of the older field workers were read, like fairy tales, with an awe indescribable, and numbered among those who wrought these charms, is the subject of our sketch, Mr. W. Otto Emerson. Mr. Emerson, whose cordial manner and wealth of entertaining bird topics have ranked him as one of the foremost pioneer ornithologists of California, has spent twenty years in active field work at Haywards and along the coast, his work commencing about 1880, ten years after he came to California from his home sixty miles west of Chicago. Almost all of his notes were published in the *Ornithologist & Oologist*, to the columns of which magazine he was a popular and frequent contributor. Mr. Emerson later contributed to the *Nidologist* and will henceforth publish his notes in the BULLETIN.

Two papers of special value were published in the Proceedings of the California Academy of Sciences, one on "Winter Birds of San Diego Co., Cal., in 1884, and "Birds and Eggs from the Farallon Islands" in 1887, edited by Mr. Walter E. Bryant. The latter paper comprised the first complete observations ever made on the Island bird

life, eighty-one species or varieties being noted in the months of May and June 1887. During Mr. Emerson's field work he has taken ten birds new to the fauna of California and published over thirty papers. His present collection consists of 3,000 skins and 10,000 eggs, many with nests.

Mr. Emerson is now serving his second term as president of the Cooper Ornithological Club, having previously occupied other positions of honor in the Club and having been always one of its active members and supporters. Mr. Emerson is an ardent naturalist within the full meaning of the term, and has made photography as much a part of his collecting as the gun, while his note books, carefully kept for twenty years, contains a wealth of valuable notes on the birds of the coast counties of California. The BULLETIN will soon print

his list of the Birds of Santa Cruz County. His skill as a taxidermist, and his exquisite touch as an artist are not less pronounced than the other traits which mark him as a true naturalist. Only those who have known Mr. Emerson personally can appreciate his cordiality and he is today one of the most popular ornithologists of the Golden State. The portrait given is one of Mr. Emerson in his artist costume. C. B.



Nesting of *Hylocichla aonalaeschkei auduboni* in the Sierra Nevadas.

BY LYMAN BELDING, STOCKTON, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Mar. 4, 1899.]

THIS is the bird I named *Turdus sequoiensis* a few years ago, but as I neglected to send enough specimens to the Committee of the A. O. U. to convince them it was worthy of a new name, they finally "considered it to be identical with the Audubon's Hermit Thrush of the Rocky Mountains," and I suppose it so stands at present. By any other name it would sing just as sweetly.

It is the finest song bird of the Pacific Coast, breeding in many localities in the Sierras, on both slopes, usually choosing damp, densely-wooded localities for a summer home. It begins to sing about the middle of May at 5,000 feet altitude, below which it is seldom found in summer, and sings until about the first of September, when it leaves for warmer regions.

Altogether I have found seven nests of this bird; all of them were within a few feet of paths. They were mostly well-concealed, but one was the reverse, having been saddled on a fallen, dead, barkless fir sapling, with nothing to

hide it except a few dead and leafless twigs. This nest contained four young which were quite fit to leave the nest about the middle of June. The eggs appear to be four or less. Three of the nests were in yew trees (*Taxus*), one was in a hazel bush (*Corylus*) and two were in deer brush (*Ceanothus*). The highest was about ten feet from the ground and the lowest about three feet. There was more or less moss (*Hypnum*) in all of the nests though the materials used in them varied considerably.

I hope this information will help ornithologists to find a few eggs of this very interesting bird and that they will forever afterward refrain from molesting this charming songster, to which I am indebted for many, many happy hours. Two photographs of one nest were kindly taken at my request, in 1898, but Mr. L. E. Hunt of Berkeley, Cal. The nest represented was built on a fallen cone of a sugar pine (*P. lambertiana*) which had lodged in a deer brush.

A Day With the Raptore.

BY ERNEST ADAMS, SAN JOSE, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Mar. 4, 1899.]

JUST as the messengers of Old Sol were speeding away toward the beautiful Santa Clara Valley, on the morning of April 12, 1898, I was urging my pony up the gentle grade toward Mt. Hamilton. Why I had decided to go in that direction I could not tell; I could not boast of *Buteos* I had taken in that vicinity, nor of *Bubos*, and when the thought of seeing eggs of the Golden Eagle *in situ* entered my head I cast it out, declaring that it belonged to only such fellows as Barlow and Taylor. I had grown careless of late; my Kites had failed me, my favorite grove for collecting eggs of the smaller birds had been cut down, and now my destination was perhaps as good as any I had in mind, though it was quite probable that Beck had been over the same ground

only a short time before. And right here let me say if there is anyone who hopes to find his first egg of *Aquila chrysaetos*, he must beware of this collector whose climbers mark many a tree east of here! I had to learn the lesson once though it cost me a fine set. I will not say how long I continued my delightful ride before hitching my horse and starting over the hills on foot, for that is one of those secrets that only oologists have.

April 18, 1896 I had removed from a newly constructed nest only ten feet in a small oak, one egg of a Western Red-tail, advanced in incubation. On April 13, 1897 a friend found two young Horned Owls in this same nest and I was hoping to find the old bird there this year, but you can imagine my sur-

prise when I beheld a hawk leave the nest and sail off in the air. The nest had been greatly enlarged and contained two fresh eggs. They resembled the one taken in 1896 but there are no distinguishing marks of identity, and I am yet undecided whether this old nest was occupied by the original pair of birds or a new pair. It seems altogether probable that they were the same ones which nested in 1896, though I am sure they were not there the following year. Passing on, I visited the hollow under a large rock and tree from which I took a beautiful set of two Turkey Vulture's eggs two years before, but there were no signs of its having been inhabited since. From an old nest situated in the hollow of an oak seventeen feet from the ground, I took a nice set of two Horned Owls measuring 2.13×1.81 and 2.13×1.85 . Two nests of the Desert Sparrow Hawk were found, each about twenty feet from the ground in oak trees, one cavity containing four eggs, the other an incomplete set of two.

Then came one of those long tramps which you are led to take by seeing a mirage of most beautiful eggs, and though as you come to the top of each hill you swear you will go no farther than the next, you are led on and on until the sun, after repeated warnings, slowly sinks behind the distant mountains and hight claims her own.

Woe to the person who meets the collector at this time if it has been an "off day" with him. But it was not quite as late as this when I seated myself on a rock at the top of my last hill and looked with longing eyes toward the next, beyond which I knew must be the best canyon in the country. I could not resist and hastened over. A Redtail catching sight of me left her nest with loud discordant screams, and well she might scream for never again was she to see those three beautiful eggs, except perchance some day, mounted and holding an edified position over my cabinet, she may look down upon them through her glassy eyes as I show them to an interested friend. On and on I went until, coming out of a little ravine, I saw another hawk resting on her nest. She too,

soon joined her mate on a leafless tree fifty yards away. Eagerly I ran to the tree but alas, it was a sycamore, its main trunk as devoid of limbs as a newly formed flag-pole. I looked down the canon perhaps in the hope of seeing Beck coming along with his climbers but I was alone. Setting my teeth in determination, I conquered the seeming impossibility, and there soon lay before me not two nor three, but four eggs of the Redtail, who was now dashing furiously at me. The eggs which are rather large and evenly washed with a yellowish brown color, are quite unlike any I had ever seen before.

Far up the canon was another nest and I was still some distance from it when the bird flew away. It was not a Redtail but a Golden Eagle. I had thought there was excitement in collecting eggs of the White-tailed Kite but they are not "in it" at all with the Eagles. I felt myself rising far above the amateurs and being set down with the Upper Ten! There was no more hesitation at climbing a sycamore, and I had soon traversed the intervening twenty-eight feet and was intently gazing upon three eggs of this far-famed rapture. The eggs are quite large, measuring 3.08×2.44 ; 3.08×2.44 ; 3.08×2.40 . One is heavily marked with reddish brown and the other two are nearly covered with lavender intermixed with dark brown. Incubation, one week.

Although it has been proven that Eagles of this species sometimes lay a second time after being robbed, (*Osprey* II, 6-7, p. 84) notwithstanding the lateness of the deposition of these, (April 12), I am inclined to believe that it was their only set. The birds appeared to be an old pair and had lost a number of wing feathers. The nest was an immense affair and had probably been added to for a number of years. This ended my day's collecting, with which I was quite satisfied and as I hastened along over the hills, each star appearing in the darkened gloom above me seemed to whisper, "To be successful let not a hill remain between you and the next canyon, for it is the *next* in which the eagles lay and happiness reigns."

Nesting of the Water Ouzel.

BY J. M. WILLARD, OAKLAND, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Sept. 3, 1898.]

JOHN MUIR'S chapter on the Water Ouzel in his "Mountains of California" aroused a great interest in me when I found them nesting on Pescadero Creek. Pescadero Canon is in the heart of a great forest of redwood, spruce and pine which covers the mountains for miles on every side. The stream is of good size and the lower eight miles before it finds the sea is of easy slope. During the spring of 1897 and 1898 I made several trips to this creek and on May 23-24, 1898, nine nests were found.

When we awoke on the morning of May 22 it seemed that after raining almost all night, the clouds had settled down over the mountains, soaking the interior of the trees where the rain had failed to reach. We left our wheels at the mountain house and started afoot over the 18 miles of wet forest road which lay between us and a ranch where we were to stop. Once over the ridge we could see miles of great redwoods, while in the hazy distance was the second ridge, yet to be crossed before we reached the foot of the grade. Under a large bridge that crossed the stream was an Ouzel's nest which was examined by letting my companion down until he could reach it. The nest was incomplete, lacking the lining. The moss of which it was composed was still wet from the soaking the old birds had given it, for when they build a nest each piece of moss is soaked in the stream, the birds dipping it again and again.

Leaving the stream we started over the second ridge and reached Pescadero Creek. Here we found two more nests, both inaccessible, as they were placed under bridges over which the road passed. Both were finished and one contained young; the latter nest was at least thirty feet above the water and from below looked like a ball of green moss six inches in diameter. Beside it was a last year's nest, gray with dust that had sifted through from above. A great stratum of sandstone pushed out

into the stream between these two bridges and on the up-stream side the rock rounded and then dropped straight into the rushing water. In a shallow cleft, overhung by a large cluster of ferns, was another nest. This cleft was parallel to the water, and about three feet above it, and its edges were so rounded that the nest had a very insecure base,—in fact, when I let my friend down by the heels to reach it, it fell into his hands at first touch. As this nest is typical I will describe it. In front it looked like a large ball of green moss, with a round opening in the middle about an inch and a half in diameter. The walls were of moss, two inches thick in front, but much thinner next the rock. A sparse lining of small water-soaked twigs was used; but sometimes the lining is of grass or is dispensed with entirely. The outer surface of the nest was roughly finished, looking like the moss-covered rock itself, while the inside was comparatively smooth. I climbed down to a rock in the stream nearly in front of the nest and but a few feet away. Immediately a bird flew from it and alighted on a rock, where, after courtesying a few times in the comical way usual with Dippers, she flew up stream and we saw her no more. This nest contained four eggs in which incubation was far advanced.

Last June I removed an empty nest from this identical location and on July 23, 1898, I found still another in the same place, also empty. All were identical except in linings, that of June 1897 being of grass, of May 1898, of twigs, while the nest of July 1898 had no lining at all. The following day we went over the mountains to another canon. Our first nest here was oval-shaped and placed on the shelf of a high, over-hanging cliff, directly above the water. As we approached, the parent left, she having been feeding her young. The broken egg shells had been pushed from the nest into the water where they could be plainly seen. I knelt on my friend's shoulders and he waded into the pool.

When I touched the nest the five young ones started up their clatter, and renewed it from time to time for nearly an hour. When the parents came back one went into the nest but flew away almost immediately and was soon followed by its mate. The nest was nine inches long by seven high, its opening two inches across; it was lined with soaked sticks. The young were dark-skinned and partially feathered.

Proceeding up the stream some 200 yards I saw another Ouzel with a large worm in her beak. She was very tame and allowed me to approach within ten feet. Then I sat down on a log while she stood on a rock in mid-stream, courtesying from side to side and twitching her tail. Soon she flew past me down stream to her nest on a moss-covered clay bank, about eight feet above the running water. It was not so well built as the others and more bulky. The young were nearly feathered, as one little fellow showed by crawling into the opening to look out. Almost half a mile down stream from this one, past the cliff nest where the parents were industriously feeding their babies, we found another nest. At this point in the canon the stream ran over bedrock for several hundred feet, at an angle of about thirty degrees. The water ran very swiftly in a natural sluice, worn out of the solid slate. This sluice was about five feet wide, close to a deep cliff, and on a shelf of this cliff, several feet above the foam of the stream, was an Ouzel's nest. Needless to say I did not disturb it as it contained birds.

At the foot of the incline just mentioned, the water struck a great rock, rebounded into the air and fell twenty or thirty feet into a large, deep pool. On either side of this pool the cliffs rose hundreds of feet, sheer on one side and overhanging on the other, stopping all passage down stream. On the farther side of the pool was a shallow cave above which another pair of Ouzels had built their nest on a projection of rock. The young must have been pretty well grown and kept up a great clatter. On returning to Pescadero Canon a boy showed me another nest of this interesting bird. This one was built in the roots of an upturned tree which the

stream had undermined. The water flowed directly under and about three feet below the nest, which contained four fresh eggs. On July 20, 1898, I was again in Pescadero Canon and located still another nest in the roots of an old tree which had floated down stream and lodged under a great rock. There were young in the nest and at that late date they must have been nearly matured. Thus out of nine nests found May 22, 23 and 24, one had fresh eggs, one incubated eggs, one was incomplete and the others held young of varying ages.



Early Hummingbirds' Nesting.

With accustomed regularity the hummingbirds are found nesting in California soon after the dawn of the New Year. The severity or mildness of the winters affect them not at all and a walk in January will usually disclose one or more of the tiny creatures buzzing about the cypress trees where the early nests are more often placed. Mr. Walter E. Bryant records the first nest and eggs of *C. anna* for 1899, at Santa Rosa, Cal. January 28. On February 12 I collected a nest of two eggs near Mt. View, Santa Clara, Cal., in which incubation was well begun. The nest was in a cypress tree, built on a twig rather close to the trunk.

C. BARLOW, Santa Clara, Cal.



House Finches Again.

Experience has taught me that House Finches *may* nest anywhere. I have found them occupying nests of orioles, towhees, grosbeaks, cliff swallows, blackbirds and portions of hawks' abodes; besides tin cans, old hats and stove pipes and now I shall add hollow limbs. One bird entering the opening of a small cavity actually squeezed her way back for two and a half feet to sit on her eggs in total darkness. Another reared her brood in the deep cavity of a Californian Woodpecker in an oak while a third selected a similar hole in a telegraph pole. The latter contained six eggs. ERNEST ADAMS, San Jose, Cal.

Capture of a California Condor.

BY H. G. RISING, LOS ANGELES, CAL.

[Read before the Southern Division of the Cooper Orn. Club, Jan. 28, 1899.]

I WAS out on a hunting trip after deer, with a party of three Santa Monica boys and a rancher named Decker, who was showing us over the mountains. We had divided our party, and Decker and myself were together, while the others went in a different direction. We started before daylight and hunted until about 9 o'clock without seeing any deer. We decided that there was no use in trying any more that morning, and started for the cabin in which we were camped. When we came to the top of one of the rocky ridges, which we had to cross, we stopped a moment to get our breath as the climbing was rather steep. In front of us lay a very deep rocky canyon, and opposite the point on which we stood was a limestone cliff, about 175 feet high. The canyon dropped down in a succession of small waterfalls through an opening in this cliff. We were a little above the top of the cliff and consequently had a fine view of it.

While standing there I noticed an adult Vulture perched about twenty-five feet below the top of the cliff and showed her to Decker. We watched her a few minutes and then tried to scare her by shouting at her, but she would not take wing. We then threw stones at her but they all fell short, striking the cliff far below her perch. At last Decker proposed that I should shoot at the cliff near her but I declined, saying that he had better do so as his rifle was smaller than mine. I cautioned him to be careful not to hit her, and he told me that he was going to shoot to one side of where she sat. He raised his rifle and fired, and I was astonished to see her go tumbling and fluttering down the cliff. I turned to Decker and proceeded to remonstrate with him for shooting the bird, but he declared that he had not shot at her and did not understand how he had made such a bad shot.

I told him that, as he had killed her, I might as well try to get her skin but he said that it was impossible to get to the bottom of the cliff, as the falls above and below could not be passed without

a rope. I intended to try however, so I started to get below the cliff so as to climb up. Meanwhile Decker went back to camp. When part way down the cliff I saw a young Vulture sitting on a narrow ledge about half way up the cliff, and off to one side of the gorge where the water came through. I then understood why the old bird would not leave. After a hard climb I at last reached the base of the cliff and there found the old bird with one wing crippled, but still full of fight. After a hard tussle with her, I at last succeeded in killing her by driving the heavy blade of my knife into her brain. She used her beak and claws with good effect and I would have been well scratched had I not had on heavy overalls and leather leggings. She also fought with her wings, striking a pretty severe blow. I found later while skinning her that she had been struck either by the bullet glancing, or by a splinter of rock, as the only wound she had was a severe bruise on the breast next the wing and the bone broken, while the skin was still intact. The bullet must have flattened out and had sufficient force to break the bone and still not break the skin.

After disposing of the old bird I thought that I would try and climb a little nearer the young one so as to get a better look at it. I climbed up the falls until opposite the ledge on which the young bird sat and was delighted to find that it ran all the way over to the fall, so that I could get across without much difficulty. I went across, and when I got nearly to the bird the ledge widened out to a width of about five feet. The young one immediately showed fight, and I found that if I tried to do anything with it on the ledge, that it would surely throw me over. So I poked it off with my rifle which I still carried, and it half flew and half fell to the bottom. I left my rifle on the ledge and went down the way I came, as fast as I dared climb. When I reached the bottom I found the young one on top of a big boulder that was about fifteen feet high. I climbed up a sycamore

sapling, that fortunately was growing close beside the rock, and soon poked him off with a dry limb. By the time I had got down again he was across the canyon and hopping up the rocks on the opposite side, using both his wings and his feet. I started up after him and reached up and caught him by one leg, just as he was about to make another jump. He reached down with his beak for my hand, but I was fortunate enough to get hold of his neck with my other hand before he caught me. He struggled and flapped his wings and I had a hard time of it for a few minutes, but at last I managed to tie his feet with my handkerchief. I then tore the braid off the brim of my hat and tied his beak securely, getting two or three awful pinches before I finished. I then slung him over my shoulder, holding him by the feet, and started to climb up the canyon, leaving the dead bird and my rifle to take care of themselves. At last I got up over the falls, getting some hard tumbles meanwhile. Every time I had a particularly hard stretch to climb he would spread his wings and try to fly and would pull me over and down I would

go to the bottom, and not as comfortably as I would have liked. However, I at last got him to camp and put him in an old chicken house, which was on the place. That afternoon one of the boys and I went back and brought the rifle and dead Vulture to camp.

The next afternoon I got him to eat some raw venison by putting a small piece on the end of a sharp stick. At first he would pick at it, but after a while he got tired and would only open his mouth and hiss. I then forced a piece of paper in his throat and he had to swallow it to keep from choking. After a little he began to understand that it was good to eat and then there was no further trouble about his eating. Inside of three days he would eat out of my fingers without offering to peck at me. I had more trouble in teaching him to drink but finally managed to teach him that also. He measured just eight feet across the wings when I procured him, and was probably about five months old. I captured him on the 25th day of August, 1898. He is growing right along, and seems to be in perfect health, and gives promise of becoming a very fine pet.

Nesting of the Wilson's Snipe in Utah.

ACCORDING to most, if not all the authorities, this species nests in the north, but I have found them breeding in this locality in abundance and have taken their eggs for several years. They arrive early in April, as soon as the snow is off the shallow ponds and low lands, and their whistle becomes a familiar sound both during the day and in the evening. Nest building commences soon after they arrive and nests have been found from April 29 to as late as July 11.

The nests are invariably placed within a few inches of the water, either stagnant, or by the side of irrigating ditches or waste streams. The nest is composed of dry wire grass loosely laid into a shallow platform, though occasionally raised two or three inches above the surface of the ground. Occasionally they select for a site the top of a hummock, but usually the nest is flat on the ground and extremely difficult to find as the eggs and nest have the general appearance of the surrounding

dead grass and rushes.

The eggs exhibit the greatest possible variation in markings and colors, a well selected series showing about the handsomest variation of any I have seen, unless it be those of the Sharp-shinned Hawk. Typical specimens are of a dull yellow background, shaded and overlaid with bold heavy blackish and brown markings. These markings are usually long in proportion to their width and form a "corkscrew" appearance on the shell, extending from the pointed end of the egg in an oblique right direction, and seldom straight toward the larger end. In some specimens the ground color is a bright yellowish shade in which case the markings are usually very bold and distinct; in others the markings are highly colored running through all the shades from rich sienna to deep brown and blackish. The bird is never shot here for game and breeds without molestation.

H. C. JOHNSON,
American Fork, Utah, Jan. 27, '99.

Coming of the Mockingbird.

BY W. OTTO EMERSON, HAYWARDS, CAL.

[Read before the Northern Division of the Cooper Orn. Club, March 4, 1899.]

Y first acquaintance with *Mimus* in the vicinity of Haywards was on Nov. 28, 1888 when one was seen feeding on late pears left in the trees. He had been making his home about the orchard for a month or more, singing cheerily every bright, sunny day and so far as known this was the first occurrence of the Mockingbird so far north as San Francisco, although it is a resident of Southern California, frequenting the orange groves. The Mockingbird was not seen about Haywards again until October, 1894 when he made his appearance in a winter pear tree beside the house. All through the clear days of winter he could be heard singing gaily from the tops of the pear or large pepper trees, now and then mimicing and silencing all the other birds about the place, with very low, subdued notes.

As the spring days lengthened his song became stronger, and could be heard through all the dale, the neighbors each commencing to notice and to claim him. By the latter part of April 1895 he disappeared only to return in November, and quickly leave as though some duty called him. It was Nov. 2, 1896 when he next came and I have now grown to look for him as a regular wandering winter minstrel. He has become so tame as to take up his roosting place in a climbing Cherokee rose vine which runs over the rear gable of the house, close to a window at which is my work table. I could look on him as he came to his lodgings, which were always approached with a sharp outcry, while at other times he would announce it was roosting time by perching on the tall flowering spikes of a garden plant and crying out in a harsh clicking note which could be heard for several hundred feet. Then he would jump into the air, spread his black and white wings, and sail over the ridge of the house to his one favorite branch among the climbers, where he always sat facing the side of the house.

In the morning the same warning

notes were given before he would leave the climber and after feeding early he would generally perch himself on the ridge of the house to salute the sun as it touched this point. Following a rainy day he would alight on the ground to feed on the worms which seem to come up after a warm rain. I have noticed that after eating his fill of the pink pepper berries he would go to rest on the house ridge and disgorge the hard kernels of the seed, as I have also seen the Cedar Waxwings do. My attention was first drawn to this by finding great numbers of seed kernels in the roof gutters, and on watching the Mockingbird one morning I noticed that the mode of throwing them out was by jerking his head to one side; this dislodged the kernels and the pulp of the berries was retained. The Waxwings come in May in large bands and fill themselves with these berries, flying then to orchard or creek trees where they sit puffed up in little brown balls, disgorging the kernels which later take root and grow.

In the spring of 1897 *Mimus* began to show a great deal of playfulness by chasing away the robins from the pepper trees and from about the house even down to the orchard, sailing at them with his flashing white-barred wings and tail, until all had left his grounds. At no time does he wander off the place nor has he brought a mate in returning each fall; perhaps he is waiting to see how we will protect him first, before venturing to set up house-keeping among the fruit orchards and gardens of this locality.



MR. H. C. JOHNSON writes from American Fork, Utah, under date of Jan. 22, that a snowstorm prevented him from a trip in quest of the breeding grounds of Clarke's Nutcracker, but he hopes to locate his prize this season, in which case BULLETIN readers will be regaled with an account of the trip, together with photographs.

Echoes from the Field.

Fall Notes from Haywards, Cal. On October 30, 1898 I noticed for the first time in this locality the Western Nighthawk (*C. virginianus henryi*.) It was flying southward high in air just after sun-down in long zigzag sweeping circles, no doubt feeding as it flew to a more inviting winter home. In nineteen years' observation at Haywards this is my first record of the Nighthawk. I am told they are common on the east side of the range in the San Joaquin valley. At Poway, San Diego Co., they occur commonly as spring migrants.

RED BREASTED NUTHATCH. (*Sitta canadensis*.) These Nuthatches made their appearance in scattering pairs among the blue gum trees, live oaks and almond trees. In the latter they seemed to find abundant food as I noted them busy picking into the nuts on September 3, 1898. They were common in the gum trees about the Oakland hills and in Marin Co., where I am told they were seen in large bands. This is their first appearance at Haywards since October 24, 1882.

WESTERN GOLDEN-CROWNED KINGLET. (*Regulus satrapa olivaceus*.) Observed feeding among the willows back of Oakland on October 22, 1898. Have not been noticed about Haywards since October 16, 1884.

TOWNSEND'S SPARROW. (*P. iliaca unalascensis*.) Have been unusually common this fall, coming into the gardens about the house and hedges but generally shy and keeping to the thick brush of the creek banks and canon sides. The earliest arrival in ten years' observations is for this season, September 25, 1898.

RED-BREASTED SAPSUCKER. (*Sphyrapicus ruber*.) Have seen an unusual number of this alpine species, a number having taken a fancy to a big blue gum (eucalyptus) tree in the yard, where, on warm sunny days, they would go to peck holes and suck the rich sap that flows freely in the cold fall months. One I found in a willow tree trying to get the best of a yellow jacket's nest, dodging back and forth either to get a mouthful of their stored sweets or the jackets themselves. Most of the fall birds have a darker colored breast than the spring plumaged birds which are bright scarlet. They arrive at Haywards in October and November and again in March on their way to the high Sierras.

MOUNTAIN SONG SPARROW. (*Melospiza fasciata montana*.) A pair of these Sparrows I took on December 16, 1897 among the dead bull rushes on the edge of a salt marsh below Haywards, forming a new county record. They are a form of *Melospiza* easily overlooked by most collectors, as also is *M. fasciata guttata*. The latter have been seen several times this winter. My records for Haywards have been March 10, 1880, November 23, 1882, October 28, 1883, January 18, 1888 and October 13, 1898. W. OTTO EMERSON, Haywards, Cal. Dec. 9, 1898.

Persistent Nesting of the Anna's Hummingbird. For several years an Anna's Hummingbird had reared her young in a cork elm in front of my home, and in 1897 I again welcomed her. On Feb. 16 the nest contained one egg but that night a heavy wind storm brushed it against an adjoining limb and the little home was ruined. March 10 the nest containing the second set of eggs situated about twenty feet from the first, fell into the hands of an eager collector. Weeks passed, and although the dainty song of the male was often heard from his favorite perch on a telegraph wire, the female could not be found. Imagine my surprise when on April 23 as I was passing down the steps, I saw the third nest not six inches from my head. I could not molest it, but unfortunately I am not the only collector in the world, and in a few days the eggs were gone, and yet the good mother was not disheartened for in a week she was carrying material for the fourth nest, which she was constructing on one of the previous year. This time four was the charm. The nests were all of similar construction, the first one, however, containing a number of feathers. ERNEST ADAMS, San Jose, Cal.

Notes on Lewis' Woodpecker. This woodpecker (*Melanerpes torquatus*) is interesting from the fact that it is neither a winter nor summer bird in this vicinity, but one of the most industrious foragers I have observed. Last summer there were but few acorns and I failed to notice a single bird though I am told that a few of them appeared but left immediately upon the advent of a spell of exceedingly warm weather. It is my belief that it was not the warm weather, but the lack of acorns that induced them to leave. This summer I observed the first bird during the last week in August and by the first of September they were observed by hundreds in one locality. From the diversity of size and plumage I am certain that the parent birds were accompanied by their broods. Their favorite resort is an eastern slope, wooded with white and live oak with now and then a bull pine and some clumps of underbrush, chaparral etc. Here there were acorns in abundance and the birds were numerous. They are now greatly diminished in numbers and less clamorous, but scattering birds may be seen in the hills, always haunting the oaks. The little Californian Woodpecker resents the intrusion and may often be seen sprinting after its big cousin, with malice in every movement. I am curious to know where the birds nest and if the acorn forms any part of their food, or whether it is the tender grub which induces them to such industry. Again I would like to know why these birds store up so much food and then leave it for other birds to eat, for certain it is that they are not here to eat it themselves. JOHN M. WELCH, Copperopolis, Calaveras Co., Cal. Dec. 18, 1898.

Notes on Audubon's Warbler and the Individuality of Eggs. In order to satisfy my curiosity, I shot a male Audubon's Warbler on Jan. 17 and placed the contents of its stomach under a microscope. I found that it contained, with the exception of a small black beetle, and a worm about one-half inch long, nothing but bits of grass. These warblers are abundant every year during the winter in this locality. They spend most of their time on the ground, feeding on grass in the orchards.

In further proof of the individuality of eggs, I have sets of eggs in my collection from two pairs of California Shrikes. Both pair nest within one-half mile of my home and I have taken eggs from each for the past five years. The eggs of pair No. 1 are smaller and rounder than the average specimens, and are very lightly marked. I have two sets in my collection from this bird. In No. 2 the eggs are all heavily marked. I have four sets of eggs from this bird and were it not for the set mark, an egg taken from one set and placed with the other sets from the same bird could not be distinguished.

WM. L. ATKINSON, Santa Clara, Cal.

Hylocichla ustulata Oedica in the Sierra Nevadas. Mr. Oberholser in the *Auk* Jan. 1899 mentions Marysville as one of the breeding localities of his new subspecies,—*oedica*. I am certain the Marysville *ustulata* is a much better singer than that of Santa Cruz and other coast localities where I have heard it, or in any of the many localities in the Sierra Nevadas. By the way, it is rarely found above 4,500 ft. altitude on the west slope, but like several species it ranges up to nearly 7,000 ft. on the east slope. Some of these, as I remember them, are the House Finch and Bullock's Oriole. Our Yellow-billed Magpie seldom gets up to 2,000 ft. although the Black-billed Magpie gets up to at least 7,000 ft. I see one or more nearly every year at the summit of the C. P. R. R. At Truckee, Cal. and vicinity it is very common.

LYMAN BELDING, Stockton, Cal.

Early Bird Arrivals for 1899. VIOLET-GREEN SWALLOW (*Tachycineta thalassina*.) Observed Dec. 31, 1898. I thought this a rather unusual date to see a number of Swallows which I took to be this species, flying about in a violent rain and wind-storm at Point Reyes Station, Cal.

MOUNTAIN BLUEBIRD (*Sialia artica*.) Feb. 5, 1899. At Pinole, Contra Costa Co., Cal. I met with a large flock of these birds scattered all through a small valley of freshly-plowed ground. They were there by hundreds and any number

could have been secured. When met with they were feeding in precisely the manner of a Sparrow Hawk; they would pause fluttering in one spot, suddenly swooping down on some insect and immediately resume another position as before, always facing a strong wind which was blowing at the time.

T. E. SLEVIN, San Francisco, Cal.

Oregon Vesper Sparrow in Alameda Co. On the afternoon of October 8, 1898 while coming over the foot-hills north-east of Oakland, I shot an Oregon Vesper Sparrow, *Poocetes gramineus affinis*. It was an adult male; one from a flock of five that were feeding among some tall grass, growing between two stubble-fields. The flock was so hidden in the tall grass, that I saw none except my bird until I fired, when the rest flew up, and were soon lost over the crest of a hill. So far as I have been able to learn, this is the first Oregon Vesper Sparrow taken in Alameda County, although two weeks later, on October 22, '98 Mr. C. W. Randall took an adult female from the same field, and presumably from the same flock. November 5, again found me in this field after another Vesper Sparrow, but I was doomed to disappointment, for I could not find a single bird.

JOHN M. WILLARD, 2221 Elm St., Oakland, Cal.

American Crossbills in Alameda Co., Cal. For many years I have been on the watch for the Crossbill in this part of the San Francisco Bay region, having seen them on several trips in Santa Cruz and Monterey counties. The former county lies along the ocean shore and in an air line from this locality, so I have naturally expected to some day see a few stragglers appear. In the first part of January of this year, at daylight on two or three occasions I noticed a flock of thick-set, quick-flying, piping birds leave the tops of some tall gum trees on the place and fly away. One morning I saw them fly to the top of some tall poplars, where I went to make out the species if possible. I saw at once that they were Crossbills and were feeding on the buds. Later in the day they flew to a large gum tree beside the house, where, after some delay, I made them out with the glass and soon secured one. Another was shot from the top of a Monterey cypress where they had gone to feed on the seeds of the cones, as I found later, on skinning them. Of the two birds shot on Jan. 26, 1899 one was in a greenish-red plumage showing a juvenile and was very fat with the crop full of soft seeds of the cypress and eucalyptus. The other male was of a rich golden-green plumage, flecked with cherry-red, showing an immature bird. On Jan. 30, 1899 a male was found dead under the big gum tree, and which must have been wounded by a long shot taken at the flock in the top of the tall trees and died on the cold night of the 30th. This was a male in adult plumage of a purplish-red with a few yellowish and gray feathers showing in the throat. The body of this bird was very thin. The weather becoming milder in a day or so the Crossbills disappeared, no doubt for their breeding grounds in the pine forests. I saw them in pairs in January 1897 at Pacific Grove where they could be heard in the pine-tops feeding on the seeds of the cones. This was on the edge of a small pond back in the forest. I have seen them come to the water's edge to drink. So far as I can find data this is their first appearance in Alameda Co. and I should be pleased to hear from anyone in the state who has observed them.

W. OTTO EMERSON, Haywards, Cal.

Albino Dwarf Hermit Thrush and Western Robin. Jan. 12, 1899 being a cold windy day drew many birds about the garden to feed, and while watching them from a window, one attracted my attention by its odd plumage, looking as though it had just arrived from the snowy regions. On shooting it I found it to be a partial albino Dwarf Hermit Thrush. Three outer tail feathers on one side are pure white while those of the other side are only tipped. The secondaries of the wing on one side were white-tipped, also several scattered white feathers on the rump and back. It proved to be a female and quite fat.

On Feb. 15, 1899 what was my great surprise upon shooting a Western Robin

from a pepper tree to have drop at my feet one flecked all over with pure white feathers, particularly on the red breast, giving it a beautiful effect. The white feathers seemed to be much worn on the edges as though cut. This proved to be a female in good condition. Many of the birds of the high Sierras have been driven down nearer the coast than usual this winter. Mountain Bluebirds have been noticed for the first time in ten years. They spend their time hovering on the wing much like the Sparrow Hawks, over the early-sowed grain fields near the Bay shores. Their last appearance was Nov. 1, 1899. Observed this year on Feb. 11, 1899.

W. OTTO EMERSON, Haywards, Cal., Feb. 20, 1899.

California Clapper Rail in Alameda Co. It would be a wise move for the Supervisors of Alameda county to declare a closed season, or two successive closed seasons, on Rail. This is the only means of preventing this fine bird, now almost absent from our marshes, from becoming annihilated. The abundance of birds after two closed seasons several years ago demonstrated the wisdom of such a law. All the sportsmen I have spoken to on this subject are heartily in favor of a closed or much shortened open season. Time, trouble and boat hire are now wasted and even the dog doesn't see any sport in returning empty-handed after a tramp through the salt grass and sticky mud. D. A. COHEN, Alameda, Cal.

Western Evening Grosbeak in Santa Clara Co., Cal. January 2, 1899 there appeared within the limits of San Jose, Cal., a flock of Western Evening Grosbeaks, (*Coccothraustes vespertinus montanus*) one of which, a male, was procured.

Jan. 17, a friend brought me two more males for identification. They were shot from a small flock in an orchard three miles southwest of San Jose. The birds were fat and oily, their stomachs containing buds of trees. At this time the weather was warm and there was but little snow upon the mountains. So far as I know, this constitutes a record for Santa Clara county, it being the first recorded appearance of this alpine species in the valley. ERNEST ADAMS, San Jose, Cal.



The Myrtle Warbler in California and Description of a New Race.

BY RICHARD C. MCGREGOR.

THE Myrtle Warbler has been recorded as an occasional visitant along the whole Pacific Coast of the United States from San Francisco north, while its breeding haunts have been located in British Columbia,¹ and by Mr. C. H. Townsend² it was found breeding on the Kowak River in Alaska. Baird says "Stragglers were seen on Puget Sound and one was taken by Dr. Suckley at Fort Steilacoom, W. T. May 1, 1856."³ The check-list gives it as "straggling more or less commonly westward to the Pacific."⁴

By Mr. Belding this species is recorded from the following localities: Willamette Valley, Nicasio, Alameda and Contra Costa counties, Haywards, Murphys, Stockton, Marysville and Summit. He also says "In fall and winter it (Myrtle Warbler) is not easily distinguished from Audubon's Warbler and being much less numerous than the latter, is likely to be overlooked in California."⁵ In the middle west I find this warbler recorded from Boerne, South-western Texas, in spring;⁶ Colorado, 9000 feet in spring;⁷ South-eastern Dakota in spring and summer migration⁸, abundant migrant in western Manitoba.⁹

I have taken the Myrtle Warbler near Denver, Colorado during spring migration. During the past year Mr. T. J. Hoover has taken near Palo Alto about thirty warblers of which thirteen are easily recognizable as *Dendroica coronata*, the others being *D. auduboni*. Besides those collected by him, Mr.

¹. Belding's Land Birds Pac. Dist. 210. ². Auk. IV, 13. ³. Birds N. Am. 272. ⁴. A. O. U. Check-list, 257. ⁵. Land Birds Pac. Dist. 210. ⁶. Auk. I, 121. ⁷. Ibid. II, 15. ⁸. Ibid. II, 278. ⁹. Ibid. III, 326.

Hoover has three Myrtle Warblers as follows: Berryessa, Beck; Sonoma, Feb. 2, 1897, Carriger; Battle Creek, Oct. 8, 1898, ♀ McGregor. From these records it seems that *D. coronata* is distributed throughout the territory west of the Mississippi. There is little doubt that a more careful examination in this region will place the Myrtle among our common migrant species.

The following MS. notes on the Myrtle Warbler as observed near Palo Alto, kindly furnished by Mr. Hoover are of interest in this connection: "Last spring I several times noticed a small black and white warbler which was at first referred to *Dendroica nigrescens*, but when secured, three examples proved to be *D. coronata* in which the spring moult was nearly completed. Two of these, male and female, were shot on April 10 in small bushes along San Francisquito Creek and one male April 16 near the same spot. Two others were seen April 9. Further observation may show that this warbler is a regular spring migrant, instead of accidental as heretofore recorded."

Mr. H. Ward Carriger of Sonoma, California has permitted me to incorporate his notes also in my present paper. Mr. Carriger says:

"Previous to the year 1896 I had never secured any specimens of this bird but found them quite common during that year. They were first noticed along a creek in the valley and it was their note which first attracted attention. I secured two specimens on Jan. 21, which appeared to be young of the year. After this date they were common and twenty or more could be seen whenever I visited the hills, where they seemed to stay more than the Audubon's. They were common in 1897, and at the present time (Dec. 1898) are as abundant as Audubon's. There is some difference in the call notes of the two warblers, but both arrive and leave together."

Having compared a fairly good series of eastern and western skins, I have found no difference in colors or markings between the two lots, but there is such a discrepancy in wing and tail lengths, both for males and females, that I believe the western bird may be recognized as having subspecific rank. I will therefore suggest that the new race be known as:

***Dendroica coronata hooveri* subsp. nov. HOOVER'S WARBLER.**

Subsp. char. In colors and markings like *Dendroica coronata*, but with wing and tail much longer.

Type, No. 1988, ♂ ad. Coll. T. J. Hoover, Palo Alto, California, April 16, 1898. In summer plumage. Above bluish-slate, streaked with black; top of head more finely streaked; crown, rump and sides with patches of lemon yellow; superciliary stripe, eyelids, throat, belly, spots behind nostrils, two bars on wings and spot on inner web of three outer tail feathers, white; cheeks and lores, black; feathers of breast black centered. Wing, 3.00; tail 2.31; exposed culmen, .38.

Geog. Dist. Western United States, breeding probably in British Columbia and Alaska.

The presence or absence of yellow on the throat is quite sufficient to distinguish spring examples of *D. auduboni* and *D. hooveri*, but with fall or winter specimens this mark is not so evident, when the following diagnoses may be of help.

Throat, yellow; white patch on wing; white of tail on inner webs of *four or five* outer feathers; a white spot on each eyelid; no white spot in front of eye; lores, bluish ash.

auduboni.

Throat, white; two white bands on wings; white spots of tail on *three* outer feathers; eyelids and a superciliary stripe, white; the latter often interrupted in front of eye; lores, black.

hooveri.

None of these characters alone are enough to identify winter birds; all of the differences must be considered before passing on a specimen. The table of measurements shows the relative sizes of males and females of eastern and western forms. I have also given measurements of five males of Audubon's Warbler. No material from the middle west has been available for the present paper so that the eastern range of the new race remains to be determined. It will probably be found to intergrade with *D. coronata*.

I am indebted to Mr. L. M. Loomis for the use of birds in the collection of the California Academy of Sciences. This new form is named for my friend, Mr. Theodore J. Hoover, who collected the types and kindly placed his material in my hands for examination.

Locality.	Wing.	Tail.	Exposed Culmen.	Date.	Collector.	Number.	Collection of
California Males.							
Oakland	3 06	2 28	.34	Apr. 2, 1885			C. A. S.
Nicasio	3 07	2 34	.38	Apr. 12, 1879			"
Cloverdale	3 05	2 30	.34	Apr. 3, 1885			"
Sonoma	3 00	2 38	.34	Feb. 2, 1897	Carriger	1989	Hoover
Palo Alto	2 98	2 22	.39	Apr. 10, 1898	Hoover	1990	"
"	3 00	2 31	.38	Apr. 16, 1898		1988	" type
"	2 98	2 24	.34	Nov. 20, 1898		1998	"
Average	3 02	2 30	.36				
Eastern Males.							
Marlboro, Mass.	2 90	2 20	.37	May 6, 1884	W. E. Bryant		C. A. S.
" "	2 93	2 26	.32	"	"		"
" "	2 86	2 08	.37				"
Washington, D. C.	2 85	2 24	.34	May 10, 1886	C W Richmond		"
" "	2 87	2 13	.34	Nov. 30, 1888			"
" "	2 80	2 10	.32	May 13, 1888			"
" "	2 82	2 09	.37	May 2, 1890	J. W. Figgins		"
Waterloo, Ind.	2 95	2 20	.34	Oct. 15, 1894	J. O. Snyder	3151	Stan'd Univ.
Average	2 87	2 16	.35				
California Females.							
Nicasio	2 88	2 26	.34	Apr. 11, 1879			C. A. S.
Oakland	2 84	2 22	.33	Apr. 3, 1885	W. E. Bryant		"
West Berkeley	2 92	2 16	.34	Nov. 26, 1885	T. S. Palmer		"
Palo Alto	2 96	2 27	.39	Apr. 10, 1898	Hoover	1995	Hoover
"	2 77	2 16	.36	Mar. 20, 1898		1992	"
"	2 90	2 24	.36	Feb. 26, 1898		1993	"
"	2 84	2 28	.38	Apr. 4, 1898			"
"	2 92	2 24	.38	Apr. 10, 1898		1999	"
"	2 90	2 20	.34	Jan. 17, 1899		2000	"
Battle Creek	2 82	2 13	.36	Oct. 8, 1898	McGregor	1991	"
Average	2 87	2 22	.36				
Eastern Females.							
Marlboro, Mass.	2 83	2 08	.35	May 6, 1884	W. E. Bryant		C. A. S.
" "	2 72	2 06	.36	"	"		"
Natick, Mass.	2 72	2 02	.31	May 1885	E. J. Smith	7795	"
Washington, D. C.	3 02	2 18	.34	Oct. 8, 1888			"
Chester Co., Pa.	2 85	2 05	.36	May 11, 1894	H. Garrett	1980	Hoover
" "	2 79	2 07	.37	May 13, 1892		1981	"
" "	2 94	2 22	.35	Oct. 13, 1891		1996	"
" "	2 66	2 16	.38	May 11, 1894		1994	"
" "	2 68	2 09	.35	May 16, 1892		1982	"
Raleigh, N. C.	2 78	2 09	.33	Apr. 24, 1893	H H & C S Brimley	1983	"
Average	2 70	2 10	.35				
<i>Dendroica auduboni.</i>							
Males taken at Palo Alto,	3 00	2 18	.38	Apr. 10, 1898		1986	
by T. J. Hoover.	3 05	2 28	.40	"		1987	
	3 06	2 30	.35	"		1985	
	2 98	2 22	.39	Apr. 13, 1898		1997	
	3 09	2 25	.37	Jan. 4, 1899		1984	
Average	3 03	2 24	.37				

BULLETIN

of the

Cooper Ornithological Club
OF CALIFORNIA.

Published bi-monthly at Santa Clara, Cal., in the interests
and as Official Organ of the Club.

CHESTER BARLOW, - - - - Santa Clara, Cal.,
Editor-in-Chief.

HENRY REED TAYLOR, - - - - Alameda, Cal.
HOWARD ROBERTSON, Box 55, Sta. A., Los Angeles,
Associates.

DONALD A. COHEN, - - - - Alameda, Cal.,
A. I. McCORMICK, Bradbury Block, Los Angeles, Cal.,
Business Managers.

Subscription, (in advance)	One Dollar a Year.
Single Copies,	25 Cents.
Six Copies or more of one issue,	12½ Cents Each.
Foreign Subscription,	\$1.25.
Free to Honorary Members and to Active Members not in arrears for dues.	

Advertising rates will be sent on application.
Advertisements and subscriptions should be sent to the
Business Managers.

Exchanges should be sent to the Editor-in-Chief.
Notes of interest and striking ornithological photo-
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Write plainly and confine your article to one side of the
sheet.

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EDITORIAL NOTES.

We shall print from time to time, the
portraits of well known Californian ornithologists,
and as a commencement of the series Mr.
Emerson's likeness appears in this issue.

It is so seldom that the veteran ornithological
workers of California appear in print, that
we present Mr. Belding's notes on the Audu-
bon's Hermit Thrush in this issue with pleasure.
The BULLETIN is also under obligation
to Mr. Belding for a recent generous donation
to the Club's publishing fund.

Commencing with this issue there will ap-
pear upon this page of the BULLETIN, the date
upon which the paper is mailed to subscribers.
This is done to give an actual date of publica-
tion to the contributions, for in the case of
certain articles such as records or descriptions
of birds and hitherto unknown observations
on their nesting habits, priority is an essential
feature. The BULLETIN wishes to protect the
rights of its contributors in a matter to which
we believe all scientific journals should give
attention. No. 1 was mailed Jan. 14.

In keeping with the onward march of the
protection of game, the sportsmen of Santa
Barbara Co. have recently organized a county
Game Protective Association, with the promise
that it will enforce the existing State and
County laws governing the unlawful taking of
game and fish. Mr. Alfred P. Redington of
Santa Barbara, one of the Cooper Club's active
members, is secretary of the new organization

and if all its members prove as active as Mr.
Redington in the work, we venture to say a
wholesome respect for the law will soon be in-
spired in those who hunt and fish out of season.
The secretary writes: "We have the mis-
fortune to deal with a class of vandals at the
upper end of this great county who seem in-
clined to look at all such law and order, or
any attempt to enforce it, as an outrage on the
rights of an American citizen:" To which we
add that the quicker these "citizens" are re-
lieved of their "rights" in this direction the
better. We wish the new organization in
Santa Barbara county every success and hope
it may stimulate the sportsmen of other coun-
ties to similar action for the necessity of game
protection is becoming more evident each
year.

As we go to press the *Bulletin of the Michigan Ornithological Club* reaches us in the form of a neat double number which completes Vol. 2 of this creditable publication. With this number Mr. Leon J. Cole becomes Editor-in-Chief with Percy Selous and Dr. Robt. H. Wolcott as associates. The Michigan Club is doing valuable, systematic work in its state and its *Bulletin* which affords a means of dis-
pensing the results of the Club's work, merits the support of all. The *Bulletin* always pre-
sents an attractive appearance and a substantial
table of contents, with many short notes,
which cannot fail to interest the ornithologist.
The BULLETIN reciprocates the compliments
of its Michigan contemporary and wishes it all
success for 1899.

We are happy to note that the *Osprey*, after
some delay occasioned by its "migration"
from New York to Washington D. C. and the
necessity of a change of printers when the
back numbers were well under way, is now
almost even on its issues and will soon be on
time each month with its wealth of bird news.
With Mr. Fuertes as Art Editor we shall ex-
pect some nice things in the line of plates, al-
though we could wish for nothing more than
some of the surpassing bird groups he has
given us during the past year. Under the
editorial management of Dr. Coues some strik-
ing department features have been introduced.
Current topics and reviews are handled under
the caption "In the Osprey's Claws" in a mas-
terly and impartial manner. While the *Os-
prey* will doubtless continue to show a full list
of prominent contributors, we venture to say
that Dr. Coues' able editorial management will
attract many subscribers in itself. Many in-
teresting articles grace the October, November
and December numbers and the *Osprey* has the
field it aspires to fill all to itself. That it will
fill it most satisfactorily no one will doubt and
we trust all Californians will accord it support.

The BULLETIN finds it necessary to issue
twenty pages with this number, in order to
dispose of a quantity of delayed material on
hand. With eighty active members in the
field, covering a large territory, our readers
can feel assured of missing nothing in the way
of news notes from the West.

This issue of the Bulletin was mailed Mar. 15.

Description of a New California Song Sparrow.

BY RICHARD C. MCGREGOR.

EXAMINATION of a small series of *Melospiza* from Battle Creek shows that there exist in the northern Sacramento valley two races of the Song Sparrow. Four examples sent Mr. Robert Ridgway were thus commented upon by him: "Three of those from Battle Creek are typical *M. f. heermanni*, by far the most northern specimens I have seen of that form, and proving, I think, that this is the resident form of the Sacramento basin, as I had already suspected. It is this form which breeds at Stockton. The fourth Battle Creek specimen is probably best referred to *M. f. guttata* although it is really an intermediate between that form and *M. f. montana* or possibly *heermanni*; much nearer, however, to *guttata*."

Since taking this specimen above called "intermediate", I have secured three song sparrows of similar plumage at Battle Creek and on reaching home I find in my collection two sparrows of a dark plumage, one from Enterprise, Butte Co., and the other from St. Helena, Napa Co. These six skins are easily distinguished from either *heermanni* or *guttata* and form the types of an undescribed race to which I give the name:

***Melospiza fasciata ingersolli*, subsp. nov. TEHAMA SONG SPARROW.**

Subsp. char. Most closely related to *guttata* but darker and without rusty wash; spotting of lower parts tending more to streaks than to spots as in *guttata*; wing slightly longer. Entire upper parts, sides of head and flanks are darker and less grayish than in *heermanni*.

Type. No. 2222, ♂ ad. Col. R. C. McG., Battle Creek, California, Oct. 19, 1898. Wing, 2.82; tail, 2.74; tarsus, .88; exposed culmen, .44.

Geog. Dist. Northern Sacramento valley, south in winter to San Francisco Bay.

Without a Nomenclature of Colors it is impossible for me to describe the absolute colors of the three forms; typical specimens of the new race are in no way to be confused with *heermanni*. From *guttata* it is distinguished by the much darker and browner dorsum, with centers of feathers almost black; crown stripe obsolete; entire plumage lacking the rusty or reddish brown which is characteristic of *guttata*.

Beside the Battle Creek skins four others seem worthy of mention.

No. 1564. Enterprise, Cal., Oct. 15, 1896. This bird is easily referable to *ingersolli* though not so dark on the back as are the types.

No. 1346. Saint Helena, Cal., Dec. 21, 1897. This is intermediate between *guttata* and the new form.

No. 1345. Saint Helena, Cal., Dec. 22, 1897. Very dark; markings of back almost obsolete; referable to *ingersolli*.

No. 1563. Sebastopol, Sonoma Co., Cal., Dec. 2, 1884. This skin is typical *guttata*.

Specimens from Beaverton, Or., have been used as representing *M. f. guttata*.

I take pleasure in naming this race for my friend, Mr. Albert M. Ingersoll of San Diego, California.

TABLE OF MEASUREMENTS.

	Wing.	Tail.	Tarsus.	Exposed Culmen.
<i>M. f. guttata</i> Beaverton, 5 skins	2.58-2.78 (2.69)	2.60-2.70 (2.67)	.84-.86 (.85)	.44-.47 (.45)
<i>M. f. heermanni</i> Battle Cr'k, 4 skins	2.64-2.75 (2.71)	2.66-2.78 (2.73)	.73-.80 (.77)	.40-.44 (.42)
<i>M. f. ingersolli</i> 4 skins	2.61-2.82 (2.72)	2.45-2.76 (2.65)	.82-.88 (.85)	.44-.46 (.45)

Official Minutes of Southern Division.

The January meeting of the Division was held on Jan. 28, 1899 at 403 Bradbury Block, Los Angeles, President McCormick presiding and Messrs. McCormick, Leland, Swarth, Wicks and Robertson present. Messrs. Wall and Warner of San Bernardino were present as visitors. The resolutions regarding the BULLETIN matter as drawn up by the Northern Division were approved and adopted. Resolutions respecting the death of J. Maurice Hatch of Escondido who died on May 1, 1898 were adopted as follows:

Whereas by the death of J. Maurice Hatch, the Cooper Ornithological Club of California has lost an able and efficient member, and one of its most devoted students of bird life, be it

Resolved that we extend our heartfelt sympathy to the members of his bereaved family and be it further

Resolved that a copy of these resolutions be enrolled in the minutes of this meeting; that a copy be sent to the family and that the same be published in the BULLETIN.

Mr. W. E. Tyler of Los Angeles was unanimously elected to active membership. The name of J. J. Schneider of Anaheim was proposed for membership. A bill for \$1.15 for expenses was ordered paid. A paper entitled "A Day with the Raptors" from the Northern Division was read after which the meeting adjourned to meet at Pasadena February 25.

The Division met Feb. 25, 1899 at the residence of F. S. Daggett in Pasadena, President McCormick calling the meeting to order. Those present were F. S. Daggett, A. I. McCormick, H. S. Swarth, M. L. Wicks Jr., F. Reiser, Chas. Groesbeck and Howard Robertson. The minutes of the previous meeting were read and approved. J. J. Schneider of Anaheim was elected to active membership. The following papers were read: "Summer Resident Warblers of Arizona" by O. W. Howard and "Capture of a California Condor" by H. G. Rising. After general discussion the meeting adjourned to meet at Mr. Groesbeck's on March 25.



Publications Received.

Auk, XVI, No. 1, Jan. 1899.

Bird Lore, I, No. 1, Feb. 1899.

In the initial number of his charming publication, Mr. Chapman has made good the guarantee of his prospectus, and presents to the public just such a magazine as every bird lover will delight in. The leading articles "In Warbler Time" and "The Camera as an Aid in the Study of Birds" cannot fail to interest those who would be close communers with Nature, while the illustrations amply fulfill our expectations. In fostering the work of the Audubon Society and in promoting a general interest in the birds and their protection, *Bird Lore* deserves the support of every lover of nature.

Bulletin of the Michigan Ornithological Club II, Nos. 3-4, July-Dec., 1898.

Journal of the Maine Ornithological Society I, No. 1, Jan. 1899.

The Maine ornithologists have reached the conclusion that to work successfully an official organ is required, which shall be devoted solely to the interests of their Society. Accordingly the initial number of the *Journal* has been issued, and with the names of such well known workers as Ora W. Knight, C. H. Morrell and others at the head, we cannot doubt that it will represent well the ornithology of the great state in which it is published. The initial number contains a report of the Society's annual meeting with several excellent papers which were read. We wish the new publication success and a substantial increase in its pages at an early date.

Maine Sportsman, VI, Nos. 66-67, Feb.-Mar., 1899.

Museum, V, Nos. 3 and 4, Jan., Feb. 1899.

Oologist XVI, Nos. 1 and 2, Jan., Feb., 1899.

Osprey III, Nos. 2, 3 and 4, Oct.-Dec., 1898.

Wilson Bulletin VI, No. 1, Jan. 1899.



Expedition off for the Tropics.

On February 25 there sailed from San Francisco in the schooner *Stella Erland* as extensive an expedition as has recently visited tropical waters. The expedition has ornithology chiefly in view and is under the command of Mr. A. W. Anthony, the well known worker of California. Those accompanying him are H. B. Kaeding, Chase Littlejohn and R. H. Beck, ornithologists; R. C. McGregor, ichthyologist; J. M. Gaylord, botanist; Geo. Spencer and Chas. Jones, assistants and Arthur Whitlock, steward. The expedition sails direct for Amapala, Honduras, C. A. where the Gulf of Fonseca will be carefully examined for specimens. Thence to Cocos Island and the Galapagos group. If time permits the party will then probably go west to Christmas, Fanning and Palmyra, returning home by way of the Sandwich Islands. Attention will be given chiefly to birds, fishes and plants, but marine invertebrates and mammals will also be collected. The expedition will be absent about eight months and with such an array of scientists we may expect some valuable work to be accomplished.

Mr. Wallace Homer, a member of the Maine Ornithological Society, paid the editor a pleasant call on Feb. 27 while en route to his home in Maine, after a pleasant visit through California.

Mr. O. W. Howard of Los Angeles is on his way to the Huachuca Mts. in Arizona, where he will put in the season collecting. He is travelling by wagon and has a good opportunity to thoroughly examine the country. He reports a set of Le Conte's Thrasher taken Jan. 30 at Indio, Cal; also a single Western Horned Owl's egg taken near Phoenix, Ariz. a short time since.

Mr. F. S. Daggett of Pasadena, who has been suffering from a severe attack of "grip" has entirely recovered.

Exchange Notices.

Each member of the Club, not in arrears for dues, is entitled to three exchange notices of 30 words each during the year; other subscribers, one such notice.

WANTED—Nidologist, Vol. I, Nos. 1, 2, 3, 4 in good condition. Will give good exchange or pay cash. A few California sets to exchange. Send lists.

W. L. ATKINSON, Santa Clara, Cal.

I PAY CASH for *Osprey* of Sept., Oct., Nov., Dec., 1896; Feb., Sept., Oct., Nov., 1897; Jan., 1898. Or will exchange other copies. One complete file and odd copies for sale. W. A. JOHNSON.

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—BULLETIN OF THE—

Michigan Ornithological Club.

Published in the
Interests of - - -

Michigan Ornithology,

Quarterly, 50c. per year,

LEON J. COLE, Editor-in-Chief,

Associates:

PERCY SELOUS, DR. ROB'T H. WOLCOTT.

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THE OSPREY is published at Nos. 321-323 4½ Street, Washington, D. C., by THE OSPREY Publishing Company, to whom subscriptions, advertisements, and all business communications, should be addressed. Articles intended for publication, and books for review should be addressed to Dr. Coues, 1726 N. Street, Washington, D. C.

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Published in the Interests of Californian Ornithology.

BULLETIN
- of the -
COOPER ORNITHOLOGICAL CLUB.
OF CALIFORNIA.

VOL. I.

Santa Clara, Cal., May-June, 1899.

No. 3.



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— OF THE —

COOPER ORNITHOLOGICAL CLUB.

A BI-MONTHLY EXPONENT OF CALIFORNIAN ORNITHOLOGY.

Vol. 1. No. 3.

Santa Clara, Cal., May-June, 1899.

\$1.00 a Year.

Summer Resident Warblers of Arizona.

BY O. W. HOWARD, LOS ANGELES, CAL.

[Read before the Southern Division of the Cooper Orn. Club, Feb. 25, 1899.]

LUCY'S WARBLER.

LUCY'S WARBLER is fairly common along the river bottoms throughout Southern Arizona, especially in the mesquite and willow thickets. The birds appear early in April and I found them breeding early in May, and took my first set on May 8, 1897, near Tucson. The nest was placed in a deserted woodpecker's excavation in a dead limb of a hack-berry tree, about fifteen feet from the ground. The nest was composed of fine straws, horse-hair and feathers and contained four fresh eggs. The eggs are pure white, with fine specks of red and brown over the entire shell, but thicker at the larger end.

Another nest found May 9, 1897, was placed in a deserted Verdin's nest in a thorny bush about six feet up. The nest was destroyed by my enlarging the entrance and I was obliged to take the three fresh eggs which were probably an incomplete set. Other nests were placed in crevices along river

banks where roots of trees were sticking out and one or two were found in natural cavities of the Giant Cactus, or in woodpecker's holes therein. But most of the nests were in mesquite trees, in natural cavities or behind pieces of loose bark, ranging in height from two to twenty feet from the ground, but as a rule they are within easy reach.

The nests are very frail affairs and are made of fine straws, vegetable fibres and leaves, with a lining of feathers and hair. The usual clutch of eggs consists of four or five, but quite often only three are laid and I have found two sets of seven each. The birds are rather wild and as a rule fly from the nest unobserved. Many nests are destroyed by wood-rats and snakes. I found several nests with incomplete sets and when I returned for them later, I found the nests entirely destroyed.

OLIVE WARBLER.

The Olive Warblers are not at all common and as they keep well up in the thick foliage of pines and firs comparatively few of them are seen. They can more readily be located by their note which is hardly describable, but when once heard is easily detected. The nests are very beautiful affairs and

are built very much like those of the Blue-gray Gnatcatcher and are composed of bits of moss, lichens, fur blossoms and spider webs, with a lining of fine rootlets. The eggs are easily distinguished from any other warblers; the shell is olive-gray thickly covered with fine black specks, sometimes al-

most obscuring the ground color. I found my first nest June 12, 1897, in the Huachuca Mountains at an elevation of about 9400 feet. The nest was placed in a red fir tree in the fork of a large limb, about thirty feet up and was well hidden by the surrounding foliage. The bird was away from the nest when I found it and did not make her appearance until I had three of her well incubated eggs in my mouth and was reaching for the fourth. I cut off a portion of the limb with the nest and made my way to the ground. After

the male and the female are very much alike. Another nest found June 18, 1898, was placed near the extremity of a long slender limb in a yellow pine about fifty feet up. I watched the bird for fully half an hour before finding the nest and it was only with great difficulty and risk that I secured the set of three slightly incubated eggs. The nest was surrounded by pine needles and it could not be seen even from the tree in which it was situated until I was within three or four feet of it. The bird sat very close and did not leave



NESTS OF THE OLIVE WARBLER.

Collected by O. W. Howard.

packing my treasures, which I was more than delighted over, I secured the female with a charge of dust shot and made haste for camp.

On June 15, 1898, I found a nest with young almost ready to fly. The nest was placed in a sugar pine near the extremity of a limb and about thirty feet from the ground; elevation about 9000 feet. The female was on the nest and as soon as I climbed the tree she uttered a note of distress which soon brought the male to the scene, where he joined her complaint. The notes of

the nest until I had cut off the limb on which it was placed and then she hopped about within four or five feet of me. The male was also near by and both birds kept up the usual note of alarm. The nest is a beauty, being covered with a wide brown material supposed to be bits of fur blossoms and is lined with fine rootlets.

On June 24, 1898, accompanied by a young assistant, I left camp before sunrise as I had several nests to examine four or five miles distant, and being anxious to reach my destination we just

hit the high places along the way. It was a beautiful, clear morning and we had a magnificent view of the country as our trail led along the sunmits of the mountains for some distance. We could see one hundred miles in any direction, with Mexico on one side of us and the United States on the other. Mountain ranges seventy five miles away did not seem more than twenty-five. After walking for an hour or so we came to my first nest, a Grace's Warbler, together with which I secured a fine set of three slightly incubated eggs and the parent bird. After packing the eggs and the bird we went on until I found a nest of Coues' Flycatcher from which we secured a fine set of four eggs. Next came an Audubon's Warbler's nest which I had found building the week before. It was situated near the end of a long branch in the top of a red fir tree about sixty feet up. While trying to secure this nest I heard an Olive Warbler not far off and soon after I observed a fine male in the branches above my head.

While watching him the female made her appearance and soon after went to

her nest which was placed on a large limb of the same tree and not far from the trunk. It was quite a temptation to examine this nest first, but as I had already tied the rope from the limb which held the Audubon's nest to the main trunk above, I thought I had better finish the job, so I crawled out on the limb and with one hand on the rope I reached out for the eggs with the other, but just as my fingers touched the nest the limb broke off short between myself and the trunk and left me hanging by the rope. I lost the set of Audubon's Warbler and came near losing my life with them, but I managed to get back to the trunk of the tree all right and a few minutes later I had forgotten all about it, as I reached out and took the four perfectly fresh Olive Warbler's eggs from the nest above, one by one. I also secured the female and the nest with a large piece of the limb. I know of only one other set, besides those taken by myself, which was taken, I believe, by Mr. Price of Stanford University some years ago and which is now in the Smithsonian Institution.

SONORA YELLOW WARBLER.

I found this variety, or rather sub-species, along the San Pedro River, near the Mexican Line and also near Tucson, but had a better chance to observe them along the San Pedro, where I found several nests placed in willow

and mesquite trees, generally in upright forks from ten to twenty-five feet up. The nests are very much like those of the Yellow Warbler, likewise the eggs. All the nests I found contained two eggs of the Dwarf Cowbird

GRACE'S WARBLER.

Grace's Warbler is equally as rare, if not more so, than the Olive. During three seasons' collecting in the mountains of Southern Arizona I have seen only four or five of these birds, two of which had nests. They are very shy and, like the Olive, keep well up in the pines in the thick foliage, except when they have a nest and then they become quite bold. While walking along the summit of a ridge one morning about the middle of June, I came to a likely looking pine and began to look through it for general results. After stretching my neck for several minutes I spied a single straw protruding from a thick bunch of pine needles. This aroused

quite a little suspicion in my mind so I laid down my climbers, collecting-box and gun and tried to look into the bunch of needles, looking from all directions, but could not see any other signs of a nest. I could have easily climbed up and made sure, but it was soon after breakfast, and I knew that I would have a great amount of climbing to do later on that day, so I picked up my traps and moved on, but had only gone a short distance when I noticed a Grace's Warbler hopping about in a bush. While I stood watching, it flew to the ground and picked up some fine straws and carried them to the bunch of pine-needles, out of which I had

seen the straw protruding. Needless to say, I was much pleased with my find. I did not go near this nest again for fear the birds might leave, but called around again on the 27th of the same month, and after a little trouble, secured the nest with a good sized piece of the limb, and a fine set of three eggs and the parent bird.

straws and vegetable fibres, and was lined with a few hairs. The eggs are pure white, lightly speckled with reddish brown. I found another nest building in a red fir tree. It was placed in a thick bunch of leaves, at the extremity of a limb about fifty feet from the ground. I watched the bird building for at least a half hour and do



NESTS OF AUDUBON'S AND GRACE'S WARBLER.

(GRACE'S WARBLER TO THE RIGHT.)

The nest was placed deep down in the middle of a large bunch of pine needles and was entirely hidden from view. I handed the limb to my assistant, who examined it closely for a minute or two, and then asked me where the nest was. He was much surprised when I told him that he held it in his hand. The nest was composed of fine

not remember of ever having seen a bird work more rapidly. She carried material to the nest at least once a minute and kept this up from the time that I began to watch her until I left. I was obliged to leave the nest, being out on a vacation and my time nearly up, so consequently I had to return.

(To be continued.)

SEVERAL Cooper Club members will spend a portion of June in the high Sierra of El Dorado Co., Cal., where they will hope to make some interesting takes in the line of Hermit Warblers, Western Evening Grosbeak, Calaveras Warbler etc. The personnel of the party as at present arranged will

consist of Lyman Belding of Stockton, Henry W. Carriger of Sonoma, John M. Welch of Copperopolis, H. R. Taylor of Alameda, C. Barlow of Santa Clara and Loren E. Taylor of Fyffe. Work will be done about Pyramid Peak and operations confined chiefly to the higher altitudes.

Spring Notes on the Birds of Santa Cruz Island, Cal., April, 1898.

BY JOS. MAILLIARD, SAN GERONIMO, CAL.

SANTA CRUZ Island is a long, narrow mountainous island lying south of Santa Barbara and distant 21 miles from the nearest mainland. Its length is 25 miles and its width varies from 1½ to 5 miles. The coast line is exceedingly irregular and precipitous, with very few portions of the actual shore accessible from the land side. The island is very rough and jagged, principally volcanic with ranges of hills and rocks in every direction, attaining in places an elevation of over 2,000 feet. It is broken by many canons, most of which are deep and the sides almost invariably steep. In spite of the heavy backbone of volcanic rock, quite a large proportion of the island is composed of grass and brush land, there being large open areas of grass and thousands of acres of impenetrable chaparral, together with great tracts of sage brush, sometimes intermingled with cactus. In places are numerous live oaks, varying in size from scrub oaks to noble trees. The open portions contained but few birds and most of the specimens collected were obtained by crawling up the bottoms of canons containing a little water, keeping a sharp lookout for cactus, into which birds when shot would often most exasperatingly roll. In regard to this vegetable abomination, while it exists only in certain areas it really seemed as if there were not a spot on the whole island where one could put a hand on the ground, kneel or fall down, without coming in contact with a piece of the stuff which had been rolled, blown or been carried there.

The first place visited was Scorpion Harbor on April 5, 1898, a small cove on the east end of the island. This little bay is the mouth of a narrow valley some miles in length, but which becomes in reality only a rocky canon about a mile and a half back from the shore. The ranch buildings—old adobes mostly—are situated 200 yards from the little beach at a point where the rocky hills appeared to almost close together, the valley widening immediately back

of them. There seemed to be a sort of "draw" at this spot and the wind howled most of the time night and day. The landing was made about four o'clock in the afternoon and the first birds seen were House Finches and Rock Wrens (*Carpodacus mexicanus frontalis?* and *Salpinctes obsoletus*) quantities of the former, and quite a number of the latter singing most musically from the rocky sides of the gorge.

On the way over from Santa Barbara no sea birds were seen except a few Shearwaters, Western Gulls and some Cormorants, with an occasional Scoter. About a mile east of Scorpion Harbor is a large square-looking rock near the shore which is evidently a breeding place for the Gulls and Cormorants. The country within a mile or two of this harbor is mostly grass land, with little or no brush and but few trees, cut up by many canons and gullies with exceedingly steep sides. The tops of the adjacent hills and some of the more rolling slopes were the abiding places at this time of numerous Island Horned Larks (*Otocoris alpestris insularis*), some thirty of which were captured. From the fact that some of these birds contained eggs almost ready to be laid it was evident that they were nesting, but hours of patient search failed to reveal a nest. The birds would flush from small hollows, from the shadows of small rocks, tufts of grass, sides of trails etc., but no sign of a nest could be found. After most carefully exploring three localities in the neighborhood where the birds were very numerous, without success, I came to the conclusion that their feeding and nesting grounds were not the same, and the latter remained undiscovered.

Many Intermediate Sparrows (*Zonotrichia leucophrys intermedia*) frequented the corrals and yards, but were mostly in a sadly moulted plumage, preparing for their spring migration. Some groves of eucalyptus trees planted further up the valley were the dwelling place of quite a number of birds common to

the mainland, such as Allen's Hummingbird (*Selasphorus allenii*), Anna's Hummingbird (*Calypte anna*), Lawrence's Goldfinch (*Spinus lawrencii*), Arkansas Goldfinch (*Spinus psaltria*), Western Chipping Sparrow (*Spizella socialis arizonae*), Western Flycatcher [which has been separated into a new species by Oberholser in the *Auk*, Vol. XIV, No. 3, July, 1897, and designated as *Empidonax insulicola*. This has not yet been allowed by the A. O. U. Committee. It was commonly heard on the island, but during my stay was very shy and seldom seen] and two pairs of Shrikes, one of which was building, while the other was already occupying a nest. This latter was inaccessible in a tall slim gum sapling and the bird would always slip off and disappear among the trees before more than a glimpse of it could be had. This Shrike has been separated by Mearns and stands in the list as *Lanius ludovicianus anthonyi*, Island Shrike, the type being taken from the Santa Cruz Island.

Naturally enough a sight of the Santa Cruz Jay (*Aphelocoma insularis*) was eagerly desired, but it was some days before one was seen. There were no Jays within a mile or two of this harbor but some were found where the first brush commenced on the steep hillsides toward the head of Scorpion Canon. In fact they were quite numerous among the brushy hills but were very difficult to approach, more from the nature of the ground than from their wariness, though they were here comparatively shy. Their harsh notes could be heard on all sides among the bushes, but seldom near enough to shoot. Two were taken at last in the canon, but all the rest that fell to my lot were captured at Laplaya. The notes of this Jay are much harsher than those of the California Jay (*Aphelocoma californica*), the screech being more like that of *Cyanocitta stelleri* and the bird much larger and of brighter and deeper plumage.

At the head of this canon an occasional Towhee (*Pipilo maculatus oregonus*) or a closely allied form, was heard and one taken, but they were exceedingly wild and difficult to obtain. Scattered all through the cactus, among the vol-

canic rocks in this part of the island, were numbers of Mockingbirds (*Mimus polyglottos*) singing most melodiously, while an allied form of Vigor's Wren (*Thryomanes bewickii spilurus*) could be heard piping away every few yards. This wren has been separated also by Oberholser but as yet provisionally. These birds were also very difficult to obtain as they mostly frequented the very steep rocks among the cactus and when a specimen was shot at it was usually impossible to find it and often even to reach the spot where it fell. In fact only a few were taken, as at least two-thirds of those killed were not recovered. A few Dusky Warblers (*Helminthophila celata sordida*) were found in this part of the canon and several taken. Their note is much longer and stronger than that of the Lutescent Warbler (*H. c. lutescens*) and has two more and louder notes at the end of the trill. The song of *Thryomanes* seemed to be also different from that of *T. bewickii spilurus*, for while the latter has quite a variety of actual songs, the Santa Cruz Island species has only one and this sounded somewhat unfamiliar.

While prospecting among the rocks an occasional Bald Eagle (*Haliaeetus leucocephalus*) would swoop down near one though seldom within shot. In fact the only shot I could have taken was in a place so rough and so far from headquarters that it would have been a difficult undertaking to carry the bird in and its life was spared. A week was spent in prospecting and exploring around Scorpion Harbor and on April 12 the move was made for Laplaya, or the main ranch. There being no wagon road the trip was made on horseback, the baggage going by schooner. Owing to adverse winds the latter did not show up at Prisoner's Harbor for three days,—a rather unpleasant contingency. As it was to be a long, rough and hot ride—100° in the shade—even the gun was sent by schooner. However nothing was seen in the four hours' ride that was to be regretted, and in fact very few birds of any kind were to be found on the tops of the ranges. The trail led over and along the backbone of the island which in that part attains an elevation of 2,000 feet, with the sea

hardly half a mile away on either side, with San Nicholas and Santa Barbara Islands in plain view in the distance. In some spots a stumble would have meant a sudden and permanent loss of interest in ornithological affairs, to put it mildly.

The main ranch, or Laplaya, is situated in a pleasant valley three miles north of Prisoner's Harbor, being connected with it by a wagon road along the bottom of the creek. The buildings face a magnificent range of volcanic mountains which are broken and rugged in the extreme. At this place birds were more numerous than at any other spot on the island. Here in the creek bottom were groves of very fine live-oaks with a small stream of water running through them, and many birds came down from the almost perpendicular hillsides to feed and drink here. Back of the buildings a range of impenetrable chaparral extended for miles, with here and there a trail cut through for driving sheep. This range is so steep and brushy that even with twenty experienced vaqueros only about one-half of the sheep occupying it are ever shorn and there are thousands of these animals roaming around with one, two or three years' fleeces on their backs, their long tails flapping behind them as they run, in a most comical manner. In this chaparral birds were very scarce, but along the edges were many Jays and a few Bush Tits, Dusky Warblers, Western Chipping Sparrows and Oregon ? Towhees, these latter so wild as to be unapproachable. Among the liveoaks, however, birds were numerous and an early morning tramp with a good deal of patience thrown in would generally be rewarded, though a dozen birds actually in one's hand by ten o'clock would be a pretty fair record, as it was not only difficult to get shots at what one wanted but also frequently more difficult to retrieve the game.

Dusky Warblers, Vigor's ? Wrens and many of the commoner birds already mentioned could be heard and often seen along the steep sides of the canon and to a certain extent among the big trees in the bottom also. In these thick live-oaks it was very hard

to get shots at the small birds and many dropped only to lodge in some indiscernable or inaccessible bunch of leaves. In this locality the Santa Cruz Jay was very abundant and bold. Many were shot with the auxiliary barrel, being too close to use a larger charge. In some particular trees these birds would at times be very numerous, flying singly, by twos or threes, and then again hours might pass without a Jay being seen. Every accessible bush and tree within two or three miles of Laplaya was carefully searched for their nests, but, while many old ones were discovered, only five were found occupied. Two of these contained eggs, one set of three eggs and one set of four; two contained young, two fledglings in one nest and three in the other, while the fifth nest was placed near the end of a long slim branch of a large live-oak, with no means of reaching it. From the small proportion of new nests to old ones discovered, it would seem that either the birds were not breeding to any extent this year on account of the severe drouth perhaps, or else nests when once built must last in that locality about 100 years before disintegrating.

The Dusky Warblers and Vigor's ? Wrens were evidently breeding everywhere, but no nests were found and it is a mystery where the former found a place to build, as the sheep had cut everything clean from off the ground and as high up as they could reach on the bushes during the rainless spring. There did not seem to be any protected spots on the ground where these birds could hide their nests in security among low vines or ferns as is their usual custom. Occasional flocks of White-throated Swifts (*Aeronautes melanoleucus*) would descend from their homes in the mountain fastnesses and circle high in air over Laplaya, but only one specimen was obtained and their breeding place remained undiscovered. Shrikes were numerous in this vicinity and contrary to the evidence given in the July *Ann.*, were not really wild. A few were lost by my not using a sufficiently heavy charge in my desire to preserve the plumage as intact as possible, but many of the specimens shot fell into the large piles of dead brush which

they frequented extensively. On one of these brush piles three were bowled over at one shot and not one recovered. This pile was about six feet high and thirty feet across, the birds being in the center when fired at. While trying to find them, a nest of seven eggs was discovered and taken, but the birds had slipped down irretrievably. They must have been having some sort of a roost over this nest when shot. Another nest containing six eggs of this species was taken and one or two found which were not completed when I left.

Song Sparrows, recently identified as *Melospiza fasciata graminea*, were frequently heard around the vegetable garden at Laplaya and often seen. This garden was surrounded by a very thick trimmed hedge of cypress which was the abiding place of these birds. A singular feature in connection with this sparrow was the fact that although shot as soon as they appeared in this garden, there would be two or three more in a day or so, and yet none were found anywhere else in the vicinity or on the whole island, except on a small creek some seven or eight miles from Laplaya, where one or two were seen. I was especially desirous of obtaining a number of specimens of the Towhee (*Pipilo maculatus* —) of the island, but they were too wild and wary. Only one pair were taken.

Some species of birds that one would naturally expect to find here were absent, such as Bluebirds, Chickadees, Wren Tits, Thrashers and Brown Towhees. No Owls or Woodpeckers, excepting Flickers, were seen or heard, nor had even the oldest inhabitant any knowledge of the presence of an Owl on the island, by sight or hearing. There was evidence that the island was visited, probably in winter, by some species of Sapsucker. Hutton's ? Vireos were found in places among the live-oaks and several were taken. Their notes and habits were the same as those found on the mainland but they differed slightly from *Vireo huttoni* in shading and average measurements. House Finches (*Carpodacus mexicanus frontalis*) were exceedingly numerous in some localities, but with the exception of the flocks congregated about the buildings,

were rather shy. Some were nesting in the vines around the house and barns but no completed nest was found by May 1. Mearn's description of a House Finch from the Santa Barbara Islands in the *Auk* (XV, July, 1898) includes some specimens from Santa Cruz Island. This has been acted upon favorably by the A. O. U. Committee and designated as *Carpodacus mexicanus clementis*. I took a number of House Finches in different parts of the island but found absolutely nothing that could not be matched in our collection from the mainland or in that of the California Academy of Sciences. Hence, if *C. m. clementis* is a resident of, or even a migrant to Santa Cruz Island, it must be of rare occurrence there and the *C. m. frontalis* which is so much in evidence must migrate in large numbers from the mainland to breed.

Three Western Blue Grosbeaks (*Guiraca caerulea lazula*) were found just back of the house in some sage brush on the day before I left the island, Apr. 30, and two males were taken. They must have recently arrived but whether they were migrating through or had come to breed is a matter of conjecture. No females were seen. In the grain fields on the top of a high mesa, one side of which was washed by the sea hundreds of feet below, some small sparrows were observed, but it was impossible to capture one as they were unusually shy. They would flush at a long distance, fly into the grass on the unplowed portions and then run so that they could not be marked. They probably belonged to the *Ammodramus* group, though they seemed even smaller than any of this group with which I am at all familiar.

Following is a list of birds observed during my stay:— *Bald Eagle (*Haliaeetus leucocephalus*); *Sharp-shinned Hawk (*Accipiter velox*); *Cooper's Hawk (*Accipiter cooperi*); *Western Redtail, (*Buteo borealis calurus*) *Duck Hawk (*Falco peregrinus anatum*); *Desert Sparrow Hawk (*Falco sparverius deserticulus*); Red-shafted Flicker (*Colaptes cafer*); *Vaux Swift (*Chaetura vauxii*); White-throated Swift (*Aeronautes melanoleucus*); Anna's Hummingbird (*Calypte anna*); Allen's Hummingbird (*Selas-*

phorus allenii); Arkansas Kingbird (*Tyrannus verticalis*); Black Phœbe (*Sayornis nigricans*); Western ? Flycatcher (*Empidonax difficilis*); Island Horned Lark (*Otocoris alpestris insularis*); Santa Cruz Jay (*Aphelocoma insularis*); American Raven (*Corvus corax sinuatus*); Western Meadowlark (*Sturnella magna neglecta*); *Bullock's Oriole (*Icterus bullocki*); House Finch (*Carpodacus mexicanus frontalis*); Arkansas Goldfinch (*Astragalinus psaltria*); Lawrence's Goldfinch (*Astragalinus lawrencii*); * ? Sparrow (*Ammodramus ?*); Intermediate Sparrow (*Zonotrichia leucophrys intermedia*); Golden-crowned Sparrow (*Zonotrichia coronata*); Western Chipping Sparrow (*Spizella socialis arizonæ*); Oregon Junco (*Junco hiemalis oregonus*); Santa Barbara Song Sparrow (*Melospiza fasciata graminea*); Lincoln's Sparrow (*Melospiza lincolni*); Oregon Towhee (*Pipilo maculatus oregonus*); Black-headed Grosbeak (*Habia melanocephala*);

Western Blue Grosbeak (*Guiraca caerulea lazula*); Lazuli Bunting (*Cyanospiza amœna*); *Barn Swallow (*Hirundo erythrogaster*); Island Shrike (*Lanius ludovicianus anthonyi*); Hutton's ? Vireo (*Vireo huttoni ?*); Dusky Warbler (*Hemitrochila celata sordida*); Audubon's Warbler (*Dendroica auduboni*); Mockingbird (*Mimus polyglottos*); Rock Wren (*Salpinctes obsoletus*); Vigor's ? Wren (*Thryomanes bewickii spilurus*); Californian Bush Tit (*Psaltria minimus californicus*); *Dwarf Hermit Thrush [*Hylocichla aonala schkæ*].

The species marked with an asterisk were seen but not taken. Those with an interrogation mark have been described but not yet separated by the A. O. U. Committee.

(Extract from a paper read before the Ornithological Section of the California Academy of Sciences, with some additions and alterations.)

A Successful Day with the Duck Hawks.

BY HENRY C. JOHNSON, AMERICAN FORK, UTAH.

[Read before the Northern Division of the Cooper Orn. Club, May 6, 1899.]

DURING May 1898 I happened to be riding among the foothills of the West Mountains in Utah, when, in circling the base of a precipitous cliff some eighty feet in height, a hawk of some kind suddenly launched into the air from a projecting point of rock. My friend pulled up his horse with the exclamation, "Duck Hawks!" A moment later we had tied the animals and flushed the female from her nest. Such an outcry did the old birds make and such a scramble did I have to reach the nest, as the face of the cliff was perpendicular and the trap rock was dangerously insecure for a foothold. Looking over the top of the ledge I saw three youngsters huddled together in a shallow cave under the over-hanging rock. This was enough and we left the locality with a mental memorandum that the nest would not be neglected by us in '99.

Thus it happened that Rollin and the writer might have been observed leaving town on two good mountain ponies on the 30th of March last. In circling Utah Lake we passed ponds on which were a goodly number of ducks of vari-

ous species and Long-billed Curlew wading around after food. But Ducks and Curlew had no temptations for us on this particular day. When in sight of the ledge I pointed it out to Rollin who was making his first trip to the locality. He remarked: "Pshaw, is that your great cliff: I will jump from the top when we get there." I advised him to remember that the altitude makes a slight difference in the appearance of objects. Another hour of steady climbing and we neared the foot of the precipice, where Rollin postponed his jump as he did not think it possible to reach the top of the cliff!

No birds were visible but we tied up the horses and a stone thrown from where we stood, brought the female off the nest. The male also jumped from a projecting rock and we were greatly interested in watching the birds. They had the ability of remaining apparently stationary in mid-air without flapping their wings. Suddenly, however, one or the other would make a dash for us, just missing one's head in passing; no wonder, we thought, were they locally known as "Bullet Hawks." Rollin

made the ascent and reported five fine eggs. Of course they had to be unpacked again when he got safely down and to us they looked much handsomer than they ever would in a large series, to the owner of which they would simply be known as a dark typical set. The eggs were laid in a little shallow

on the ledge, without a straw near them and no nest was constructed. Again on horseback we plodded the weary miles homeward, with the crickets and frogs piping a march to which the Bittern furnished bass and of which the whistle of Wilson's Snipe overhead was treble.

Winter Birds of Shanghai.

BY MILTON S. RAY, SAN FRANCISCO.

[Read before the Northern Division of the Cooper Orn. Club, May 6, 1899.]

FTER leaving Japan in February, 1898, at a season when birds were by no means numerous, I was surprised on arriving at Shanghai at the abundance of bird life. Along the Whang-Poo River, on which Shanghai is situated, water and marsh birds were almost as common as land birds are about the city. Excepting the Tree Sparrow [*Passer montanus*] the Magpie [*Pica cincta*] or Rice-bird as it is called is the most numerous, and although the trees were yet bare, I observed several nests completed and a large number building. These nests were so common that scarcely a group of trees but contained one or more.

Along the muddy river the Black Kite [*Milvus ater*] was plentiful. A common sight is a dozen or more of these large birds resting between their day's labor on the cross cable or spring stay of the ships about the harbor. I observed one of these birds with a Tree Sparrow in its claws which it pulled apart as it flew along.

A bird of interest is the Ringed Crow. It is an odd looking bird with a broad white ring running around the neck and down across the breast. At times large flocks of Rooks, with a sprinkling of Crows, assemble in the grassy interior of the race-course in search of worms. The Crows are made conspicuous by their size and peculiar markings. Bubbling Well Road is the principal thoroughfare of the residence portion of the English settlement. Here in the large gardens, birds are very common. One morning as I was walking along this road, by a small stream, I came upon a pair of Eastern Kingfishers [*Alcedo inspida bengalensis*] I had hardly time to examine them closely when the one

nearest me plunged almost perpendicularly into the water and emerged in a moment with a small minnow. This bird has beautiful dark blue wings and a rich chestnut breast. Further on I noticed on the lawn of a garden a pair of Masked Hawfinches in company with blackbirds, thrushes and pipits. These were the only Hawfinches I saw during my stay and was informed they are quite rare.

Passing on, my attention was attracted by a large flock of doves [*Turtus chinensis*] which so closely resembled our own Mourning Dove that from a distance they were indistinguishable. This dove has a white mottled patch on its neck and the tail is broadly tipped with white. Returning, a bright colored Titmouse flitted across the road and then a large Flycatcher left his perch in pursuit of an insect and I felt sad to think I would have to leave this rich field so soon. No doubt the abundance of bird life is accounted for by the protection they receive from the Chinese, whose religion prevents their wanton destruction. In Japan however it is just the opposite. I noticed in a Japanese taxidermist's more than 100 skins of the beautiful Kingfisher and an equal number of the brilliantly colored Wag-tails, beside a horde of Finches, Thrushes and larger birds. Of what use such large numbers of skins can be is a mystery to me. Aside from the wild birds, the bird stores of Old Shanghai are worthy of notice. Here thousands of birds—Canaries, Finches, Thrushes, Parrots, etc., are crowded in small wooden cages and the varied concert midst the squalor of a native Chinese city is a sight not easily forgotten.

IS THE UNLIMITED COLLECTING OF
BIRDS IN BREEDING SEA-
SON JUSTIFIED?

—
A COMMUNICATION.
—

To My Fellow Ornithologists:—

Realizing fully that in condemning a practice which, by reason of its having been followed by many of our best ornithologists, has assumed to many the garb of propriety, I am inviting criticism and perhaps caustic criticism at that, I lay before you a matter which has impressed itself upon me for three seasons past. What I have seen of bird slaughter (and it can be known by no other name) has placed me as unalterably opposed to collecting large numbers of birds during the breeding season. It is not my wish to attempt to arouse a senseless sympathy, such as has cropped out in too many of our magazines of late, with scarcely a fact to justify it in many cases. I have kindly feelings for those of the Audubonians who are working for bird protection in a practical way, but none whatever for those who rant and criticise the current journals because they print the bird news. The theorists are all right but as useless as the fifth wheel of a coach, so long as their theories are unexecuted, save on paper. I hope to be understood as not adding another to the already long list of empty pleas with which we have been afflicted of late.

The science of ornithology demands the collecting of any reasonable number of birds to further its ends, and personally I have taken the lives of birds with as much zeal as any, when the skins were desired for actual use. Furthermore I have always been a devotee of the gun rather than the opera glass in collecting, and am at the present time a recruit in what Dr. Coues has termed the "shot-gun wing" of the ornithological army. Therefore I may presume to write without prejudice against unnecessary bird slaughter. It seems but humane that where unusual numbers of skins are collected that the time should be during the spring and fall migrations or else in winter or early summer. No sane ornithologist can condemn the shooting of one or both parents to an occasional nest, if they be desired for identification or for the collection,

but it would be needless, nor is it practiced, often. To such a status it would seem that extremists in both directions might agree.

My first insight into bird slaughter in the name of science was in 1896 during my stay in the Sierras of El Dorado Co., Cal. Two well known Californian workers were touring the emigrant road, having been sent out by a third ornithologist, and were allowed ten or fifteen cents per skin for such of the take as he could use. This was, of course, an incentive to collect everything in sight, which I must say, regrettably, was done. Each day these collectors roamed the woods and hills and every bird which had the confidence to present itself to view, paid for its temerity with its life. In the Sierras many species are typical, such as *Pipilo maculatus megalonyx*, and others which are not hoped to show any perceptible variation. Yet in 1896 species such as Cassin's Vireo, Spurred Towhee, various warblers etc. were collected without limit, as many as thirty to fifty of some being taken. Most of these were not collected for the personal use or study of either of the three interested parties, but to be sold for a paltry sum, if indeed at all, for after the trip over rough mountain roads and being packed away when "green" for weeks, many of the skins were poor and misshapen. This was the first slaughter in the name of science which I witnessed. Perhaps 500 or 600 birds had been taken from their haunts in breeding time, the collectors had unquestionably done much hard work in warm weather, while their return was very moderate financially. Doubtless they saw and learned much of nature and the birds, as both were active workers in the field, but the glory of their season's work has upon it a blot in the shape of unwarranted bird slaughter.

In 1897 another prominent Californian made an extended trip over the Lake Tahoe road of El Dorado County through the Sierras. He was accompanied at first by one and later by several assistants. This gentleman I count as a personal friend and a thoroughly able naturalist, who has the charm of enlivening camp life which few possess, and far be it from me to criticise his good nature or to disparage the value of his scientific work. But he waged the same heartless war-fare against the birds all through the summer and I will not venture to say how many birds were numbered in his collection when he left the Sierras, but certain it is that the number was in excess of all requirements or reason.

There are species little known, such as the Californian Pine Grosbeak and some others in the Sierras which no collector could be criticised for collecting on sight, but this idea of making a daily killing, shooting everything in sight be it sparrow, warbler, flycatcher, woodpecker or what not, simply to swell the number of skins of the season's work is gory and not compatible with the ideas which a conscientious ornithologist should hold. Many of these birds will never be used for comparison, for the reason that the plumages are constant as a rule in this zone, and many too common to be classed as desirable, will bring only a paltry price when sold. And I ask if it is not a very serious question whether any ornithologist may collect in such a wholesale and random manner and call it science?

Some may contend that only a comparatively small area of the country was worked over, but this does not alter the principle at all. I base my whole criticism on the proposition that if wholesale collecting is wrong, it is *doubly so* in the breeding season! It was during this time that most of this work was done. All the species were nesting and had either eggs or young, but no attention was paid to this as a rule. Birds were shot anywhere and everywhere without so much as a thought for the welfare of the nestlings and who can say how many young birds thus deprived of one or both parents died from starvation or exposure? This is not an overdrawn picture but what Mr. Carriger, myself and others witnessed daily for almost two weeks, and it went on for several months.

One ornithologist? F. M. Nutting, who was in the party, found the nest of a Pileated Woodpecker in a pine stub, containing young, and promptly shot one parent. This he brought to our camp one Sunday afternoon, evidently proud of his prowess at having stalled a bird which had perhaps lost its fear through duty to its young, and remarked that he *should shoot the other bird when he went back!* What a damnable sense of decency, let alone humaneness! I ask should such irresponsible beings be permitted to roam the woods, with no more perception of conscience than to commit such brutalities? It was an outrage which I know was not sanctioned by his principal.

The ornithologist should be the birds' best protector, even though he must at times shoot them for study, but what shall we say when he goes among them in nesting time, shooting

indiscriminately and leaving the young to perish? Every naturalist owes it to science to protect the natural beauties with which the Creator has blessed the earth, and how can the collector, with never a twinge of conscience, quiet the sweet voices of the woodland in a fashion little less than barborous, for pecuniary gain? I may be called a "sentimentalist" as a reward for these words, and if so I accept the charge willingly. Well may the man blush who has no sentiment or consideration for bird life when he is in the midst of it; he lacks the higher aspirations of the true naturalist.

In the fall of 1897 large numbers of juvenile Hermit Warblers were taken, amounting in number if I remember correctly to about 100. While the plumages may have been interesting such a series as this was scarcely justified, and I question if it could be attributed to legitimate science. I have painted the picture of bird destruction as I saw and know of it, and totally without personal feeling. That this letter will have the effect of preventing such collecting in the future I have no hope, but if it be the means of drawing a response from those I have criticised or of calling forth the support of others, my object is accomplished. One of the primary inducements of these expeditions is to secure collections of skins to sell, and upon this hinges all the wrong.

In speaking with a well known ornithologist recently, and while talking of bird slaughter, he was frank enough to tell me that he "collected for what was in it." I admired his frankness and respect him for admitting the point without argument. And how shall we meet such frank admission of wrong, if wrong it be? Better that a restrictive law be enacted, even though it inconvenience all, than for such unwarranted destruction go on. Without any attempt at embellishing these facts with sentiment or satire, in both of which my pen might but crudely serve me, I invite open letters on the subject. We shall be glad to hear any Californian plead justification with sincerity, if he has collected in this manner, and the BULLETIN will be open to all with impartiality who wish to further discuss this question. I believe firmly that the making of large collections during the breeding season should be prohibited, and that the mercenary part of it should be severely condemned.

C. BARLOW.

Breeding Habits of the Least Tern in Los Angeles County, California.

BY A. I. MCCORMICK.

[Read before the Southern Division of the Cooper Orn. Club, March 26, 1898.]

THE beaches of this county, from Santa Monica southward, afford excellent breeding grounds for numberless birds of this species. The coast consists mainly of low sandy beaches, extending back 100 to 200 feet from the water's edge. Back of the beach proper come low sandhills, interspersed with small valleys, and farthest from the ocean are the higher lands, covered with a thick growth of low sage and other shrubs, about 200 feet from the water's edge. Water on the one side and sage brush on the other mark the boundaries of the nesting grounds of Least Terns, most of which last year [1897] arrived from the south about May 10th. For ten days they remained flying high over the sea, seldom if ever coming within gunshot range. My first trip to the beach was made on May 25th, in expectation of collecting eggs of the Snowy Plover, not expecting to find the Terns breeding. Consequently I was surprised on entering the colony, to see numbers of Terns flying wildly about, uttering their shrill notes, indicating that nesting had commenced. The result of information thus conveyed was that my friend and myself at once began to search for their eggs.

So successful were our efforts that during the day we collected twenty sets of two eggs each. The first set taken was in a mere depression in plain sand, about two inches deep and four inches wide, 100 feet from the water's edge. This description answers for the average of all sets taken on this trip—the distance of the nests from the water varying from 75 to 600 feet. Set No. 2 was taken from a hollow in the center of a bed of gravel, lined with small fragments of white shells upon which the eggs were laid. This is quite common with the Snowy Plover, but exceptional with Least Terns.

My second and last trip to the beach was made on June 5, when I was fortunate enough to take fifteen sets of Least Tern's eggs. Six of them consisted of three eggs each. This is ex-

ceptional in this county. I have consulted several collectors who have had considerable experience with Least Terns in this locality, and with one or two exceptions two eggs has been the invariable complement found. Several other sets of three were taken in 1897. In all I took 25 sets last season, but could easily have doubled that number had I desired to do so. On each trip we left many nests containing one egg, and many new depressions ready to receive eggs.

All the eggs collected on the first trip were fresh, but many of those taken in June were much incubated. The Terns nest in colonies in common with Snowy Plovers, with eggs of which those of the Terns are often confounded. But upon close examination they can be easily distinguished; those of the Terns are more nearly oval, and the small end of the Plover's egg comes to a sharper point.

The ground color of the eggs of the Tern is lighter than that of the Snowy Plover's. The spots on the Plover eggs appear like scratches, while in the case of the Tern, the spots are more symmetrical and rounder, and harmonize better with the ground color.

The habits of the two birds during the nesting season are quite different. On one's entering the Tern colony, all the birds at once rise and fly swiftly about overhead, often darting at the intruder within a few inches of his head. They are the most pugnacious and saucy birds that I have yet met during nesting time. The female Snowy Plover often waits until one is within a few feet of the nest before she leaves it, and when she does hop off is generally unobserved. This Plover is a very quiet, unobtrusive bird, in fact, one might tread the beach for hours in the midst of these birds and not know of their presence unless particular pains were taken to ascertain it. Instead of rising from the ground and flying overhead like the Terns, on the approach of a person they run along the sand a few

hundred feet, remain motionless for a short time, and then run on again. Their nests are almost invariably situated by the side of a stone, stick or some other object unlike the surroundings; this only occasionally happens with the Terns. The Plovers prefer to be as close to the water as possible, while the Terns are about evenly dis-

tributed back to the sage brush. Neither of the two species are so numerous as in former times on the coast of this county. Eggs of the Least Tern have been taken as late as July, but on the 30th no Terns were to be seen at Santa Monica, all having, I suppose, gone southward.

Capture of a Rabbit by a Golden Eagle.

BY WM. L. ATKINSON, SANTA CLARA, CAL.

BEFORE I begin my narrative perhaps it would be well to state that I live on a fruit farm, three and one-half miles west of Santa Clara. At the back of, and adjoining the orchard is an open field containing about sixty-five acres. One warm morning in August, 1894, I was working in the orchard

field. He was at this time in the center of the field, and about 200 yards from the fence, toward which he was running.

The Eagles circled above him, at a height of about thirty feet; first one of them would swoop down at the rabbit and then the other; but the result was



Drawn by Miss Charlotte Bray, Santa Clara, Cal., from a description.

near the back fence when, glancing up, I beheld two large birds circling and swooping at some object in the grain field. A second glance and I knew that the birds were Golden Eagles. Hastening to the fence I saw that the Eagles were endeavoring to catch a rabbit which was running across the

always the same, for the rabbit was quick enough to dodge just as the birds struck at him. The chase was now nearing the fence, and it seemed that if the rabbit could succeed in reaching it, he could, by dodging around among the trees, baffle his pursuers. The Eagles seemed to know this also for,

when within fifty yards of the fence, the larger one of the two swooped down at the rabbit, and when he dodged the Eagle pursued him, flying at a height of about three feet above the ground. The rabbit redoubled his speed and made straight for the fence, the Eagle following and both doing their best; the one fleeing for his life, the other pursuing to satisfy the cravings of an empty stomach.

This unequal race was kept up until the fence was reached, the Eagle having gained until she was but two or three feet behind the rabbit. When the rabbit passed through the fence, I expected to see the Eagle give up the pursuit, but she had no intention of doing so, for without slackening her speed she raised herself just enough to clear the fence, and, dropping down behind the rabbit, continued as before. Still I thought that he had a good chance to escape, for he had gained a little ground in passing through the fence, but instead of dodging around through the trees, which is something the rabbit always does, when pursued by dogs, he was so crazed with fear that he ran in

a straight line down through the orchard.

The velocity with which the Eagle flew at this stage of the chase was something wonderful. Fast as the rabbit ran, the "great black shadow" behind him drew nearer and nearer, until, poising an instant over its victim, the Eagle pounced upon him. A short struggle, a cry or two from the rabbit, and all was still. I hastily ran toward the spot, and had approached nearly to the Eagle when it took wing and joined its mate, which was wheeling around above me. After a few turns they mounted up into the heavens and in a short time disappeared.

The rabbit was a large "Jack," and was in a perfectly healthy condition. A row of deep gashes on either side of the backbone marked the spot where the Eagle had struck him with its talons, and his head was almost severed from the body, the throat being cut almost as cleanly as could have been done with a knife. The gash extended from the jaw bone on one side of the neck, to the ear on the other.

Echoes from the Field.

The Old-Squaw and Fulvous Tree Ducks at Alviso, Cal. During the first week in February of this year I received from Alviso, in this [Santa Clara] county, a specimen of the Long-tailed Duck or Old-Squaw, a female in winter plumage. So far as I know this is the first instance of this species being taken in this county, nor am I aware that it has ever been reported from any point on San Francisco Bay.

I have seen at the house of a friend in San Jose a Fulvous Tree Duck, also taken at Alviso several years ago. I believe that this species has not been recorded from this county before and is, at any rate, a rare visitor here.

F. H. HOLMES, Berryessa, Cal., April 15, 1899.

A Record for Los Angeles County, Cal. I have to report an addition to Mr. Grinnell's "List of Birds of the Pacific Slope of Los Angeles Co." having taken four males and two females of *Loxia curvirostra minor*. They were working on the cones of pines along Lincoln Ave., Pasadena, and when disturbed by the report of a gun, were readily recalled by imitating the note of the female. Different members of the Club have looked sharply for this Crossbill among the pines on Wilson's Peak during the past few years without success, but now the dry year and consequent lack of food, brings them to our very door.

F. S. DAGGETT, Pasadena, Cal., Dec. 26, 1898.

Unusual Lining of a Red Bellied Hawk's Nest and Sonoma County Notes. On April 14, 1890 I secured a set $\frac{1}{3}$ Red-bellied Hawk and was surprised to notice a nest of the Californian Bush Tit used as part of the lining of the hawk's nest. It was torn open about four inches from the bottom and as the shells of several eggs

were stuck to the feathers inside, the Bush Tit's nest must have been taken from the tree by the hawks and torn open afterward. On April 7 the hawk's nest held two eggs but the Bush Tit's nest was not then a part of the lining.

During the winter of 1896 I saw what I supposed was a Mountain Bluebird, but not until last winter was I positive that *S. arctica* could be placed on my list of Sonoma Co. birds. On December 8 I saw two and they were common in January and February, and several were seen on March 9. They remained in large open fields and seemed to find plenty of food as a male shot on Jan. 18 was in fine condition.

In the March-April BULLETIN Mr. Slevin speaks of seeing some Swallows at Point Reyes on Dec. 31 which he took to be the Violet-green. I think the birds were Tree Swallows as I have never seen the Violet-green until late in February, while the Tree Swallow has been noted every month in the year. In winter they can often be seen flying about some warm springs along the foothills at the edge of the marsh off San Pablo Bay.

HENRY W. CARRIGER, Sonoma, Cal., April 16, 1899.

Eastern Junco and White-throated Sparrow in California. I have the pleasure to record the capture of three specimens of *Junco hyemalis* in California. The first, a male I took at Battle Creek on October 23, 1898. The other two were found at St. Helena, a male on the first of last February and a female three days later. Through the kindness of Mr. W. E. Bryant I may record four specimens of *Zonotrichia albicollis* for this state. One was taken at Los Angeles, Feb. 25, 1897 and is mounted in Mr. Bryant's collection. Three taken at Santa Rosa now belong to me. Dates of two are Oct. 13, 1898 and Nov. 23, 1898. The third one has not yet been forwarded to me. There appears to be no difference between these and eastern specimens of *Z. albicollis*.

RICHARD C. McGREGOR, Palo Alto, Cal.

Notes from Alameda, Cal. WESTERN BLUEBIRD: For the last seven or eight years I have not met this never common bird as formerly. On frequent trips through the county and Contra Costa County in spring I have noticed from three to ten on each trip during the past five years and at times saw none at all. It is a sparse breeder in Alameda County. An acquaintance of mine took a set of eggs in this town about fifteen years ago.

The last Dwarf Hermit Thrush was seen, rather heard, April 6, a few miles from here. It was unusually common this winter. One made itself at home about my woodshed and became quite tame, eating grubs and bore worms when I was splitting wood.

Western Robins were very scarce up to January. In February they were quite abundant, singing freely. I heard one singing in December.

One Varied Thrush noted April 12, they have nearly all departed now. Observed the first one on Sept. 27.

A few Western Golden-crowned Kinglets wintered here in the live oaks and evergreens. I observed them occasionally from October to March. The Ruby-crowns were common, as usual, this winter, but not gregarious like the Golden-crowns.

On Sept. 27 I heard the "call" notes of a Russet-backed Thrush, and although the bird remained hidden, I knew I was not deceived by its indistinguishable voice. The late date is commentable.

Nuthatches are rarely observed any year. Perhaps they do not occur at all some years in this immediate locality. They were often seen this winter. A Red-breasted was the first one seen, Aug. 30. Took one Sept. 5 and one Oct. 10, and a Slender-billed Nov. 11. The last birds seen were in the middle of February. All the birds ever seen here were seen within a radius of 300 yards.

I have observed the Western Winter Wren here only several times. Took one Oct. 6.

Plain Titmice are fast disappearing and are growing quite uncommon. Further back in the hills is where civilization has driven them. Young were found in two nests April 8.

The American Pipit in winter appears to be as much at home in town as the urban English Sparrow. After a rain they can be found singly or in small bunches along the pavements in the densest part of town looking for worms.

Took a ♂ California Creeper Jan. 14, making the first one I ever saw in the county.

Parkman's and Vigor's Wrens are seen almost the year around. Last winter (1897-8) a Parkman's remained about my garden and the winter before last (1896-7) a Vigor's wintered near by. Neither species passed this winter here.

In January I took a ♂ Tule Wren from the salt marsh near here. Several of the crown feathers and one wing primary (secondary) were pure white.

Peculiar Eggs of California Shrike and Other Notes. In the San Joaquin Valley about twenty-eight miles southeast of Stockton, on May 23, 1898, I found two nests of the California Shrike in a grove of locusts near the road, both containing eggs partly incubated. One egg in the set of four is pure white, with a faint greenish tint, marked at the larger end with a black scrawl, and over the surface are a few obscure specks of light brown. The other three are typical specimens although one is lightly marked. The set (?) of two also contains an almost unmarked specimen.

On June 15, 1897 near Soquel, Santa Cruz Co., Cal. I took a nest of the Western Wood Pewee containing three fresh eggs. On examining the nest after reaching camp I was surprised to find two more eggs beneath the lining, in which the contents were partly dried. They differ much in size and color from the other eggs and do not seem to have been laid by the same individuals.

MILTON S. RAY, San Francisco, Cal.

Notes from Marin and San Benito Counties, Cal. In BULLETIN No. 2 are some interesting notes from different sections of the state concerning the appearance of birds unusual in the localities mentioned. It strikes me that it would be beneficial to the students of ornithology if such notes were supplemented by additional ones from persons who have been in position to make observations upon the species mentioned in different localities at corresponding dates, as this would assist very materially in studying distribution and habits. Accordingly I will endeavor to make a start in this line by adding my notes to those of the last issue.

RED-BREASTED NUTHATCH (*Sitta canadensis*). Mr. Otto Emerson speaks of these birds having appeared in Alameda Co. in September 1898 and mentions their occurrence in Marin County. At that time they were very abundant here, the first having been observed on Aug. 29 when two or three were seen. A few days later they were very numerous, frequenting almost altogether at this time the fir and cypress trees on the ranges. In October they became less abundant and toward the middle of the month were found feeding among the live oak trees, even in the valley near the house. By Nov. 1 they had all disappeared. This bird has never to my knowledge, been recorded in Marin Co. before. I saw a few in San Mateo on Nov. 6.

LEWIS' WOODPECKER (*Meleagris torquatus*). These birds breed to a greater or less extent, seemingly depending upon the season, at Paicines, San Benito Co., Cal., where we have taken several sets. On the first of last October a large number of immigrants must have come in as they were far more numerous than those breeding there would account for by natural increase. My brother and I collected a beautiful series at this time of birds of the year in different plumages, some of which were exceedingly interesting.

AMERICAN CROSSBILL, (*Loxia curvirostra minor*). At times these birds pass through Marin Co. in numbers, stopping for a short while to feed, often on the Tojon berries. As they are very shy and generally frequent the tops of the tall Douglas firs on the higher ranges they are difficult to obtain, but specimens have been taken on two occasions by C. A. Allen. Some years elapse without any being observed, but this does not prove that they have not been here, as their usual feeding grounds are seldom visited by any observer.

WESTERN EVENING GROSBEAK (*Coccothraustes v. montanus*). On October 14, 1898 a ♂ of this species was shot near Point Reyes Station, Marin Co., and sent to me. Their occurrence in this county has been reported to me before but as no specimens had been taken the reports were not verified.

MYRTLE WARBLER (*Dendroica coronata*). This bird is much more common in California than most people have been led to suppose. There are a number in our collection from Marin and San Benito counties, though we have only collected them casually. I have seen a good many that have not been taken and find that at close range they can be sufficiently recognized by the superloral and postocular streaks to enable one to be moderately accurate in identification. That is to say, if a person were to shoot all that he saw with this characteristic he would find the majority of his birds to be *coronata*.

SEX OF WINTER RESIDENTS. It would be interesting to hear from different localities in regard to which sex predominates in some of the winter residents. For instance, here at San Geronimo, nearly every Red-breasted Sapsucker (*Sphyrapicus ruber*) taken is a ♀ especially so in midwinter. All of the Ruby-crowned Kinglets (*Regulus calendula*) taken here have been males. Almost all of the Dwarf Hermit Thrushes (*Hylocichla aonalschkae*) also have been males, only three that I know of having proved to be females, one of these being a partial albino. We have several Thick-billed Sparrows taken here at different times and all ♀. These last are present some winters, but not all. How are the birds above mentioned in other localities?

JOSEPH MAILLIARD, San Geronimo, Cal.

An Account of the Taking of Four Sets of Eggs of the Ivory Gull.

FOUR eggs of the Ivory Gull (*Larus eburneus*) were brought home by Gustaf Kolthoff, naturalist to the Nathorst Swedish Expedition in the summer and early autumn of 1898, having been received from Captain Kjældsen of the ship Frithiof in exchange. Mr. Kolthoff writes "When we were going from King Carls-Land to Franz Josef-Land we met on the way the steamer Frithiof, owner the old ice traveller Captain Kjældsen, who had been there with the Wellman Expedition. Captain Kjældsen told me that when returning and sailing close to the coast they had, near Cape Oppolzer on the S. W. of Franz Josef-Land in 80.04 N. latitude to about 57° E. longitude, visited a little, low-lying, unnamed island, situated very nearly south of Cape Oppolzer, upon which were breeding a large number of 'Ice Gulls' (Ivory Gulls). The nests were on the flat ground, built of green moss, and

only in four cases was there still a single egg,—in all the rest were young, very small, half-grown and none so grown that they could use their wings. The four eggs were all strongly incubated. This was on August 4 and upon the 12th we met the steamer and I obtained all that Captain Kjældsen had—four eggs and one young bird. As I understood Captain Kjældsen the Wellman Expedition had left his ship before it visited Cape Oppolzer." Mr. Kolthoff adds "On the Spitzbergen and King Carls-Land coasts the Ivory Gulls had their nests on high cliffs where it is nearly impossible to reach them." Two of the above eggs are in the Upsala Museum and the two others in my collection. The latter measure 2.29x1.69 and 2.25x1.68 inches.

A. W. JOHNSON, Waterside, Eng.

(The BULLETIN, though devoted to Pacific Coast ornithology, gladly gives space to the above notes on this rare and beautiful Gull. Mr. Johnson is a member of the Cooper Club, and is now enjoying a sojourn in his old home. Ed.)

General News Notes.

TROPICAL EXPEDITION WRECKED.

The scientific expedition which sailed from San Francisco February 25 for tropical waters, as recorded in the March BULLETIN, met with disaster about thirty miles north of Magdalena Bay off Lower California, on the night of March 16, where the schooner was wrecked and deserted. Those comprising the party were A. W. Anthony (in command), H. B. Kaeding, Chase Littlejohn, R. H. Beck, R. C. McGregor, J. M. Gaylord, Geo. Spencer, Chas. Jones and Arthur Whitlock and the schooner carried a cargo of thirty tons of giant powder which was to be landed at Amapala, C. A. the first objective point of the expedition. Everything went smoothly until the night of the wreck; Mr. Beck was at the wheel about midnight, with the schooner running before a strong wind, when, without warning, it grounded on a sandy beach. At sunset the mainland was about fifty miles distant and the schooner's course was shaped to pass a certain promontory at fifteen miles to the seaward. No explanation for the wreck can be given further than the surmise that the schooner was caught by a strong current and carried shoreward. Almost all the specimens collected were lost, but most of the collecting outfits were saved.

The schooner was a total wreck and the absence of rocks alone prevented the ignition of the giant powder by the vessel pounding on the beach, for which the party was duly thankful. A cold and cheerless night was spent on the beach, with lamentable lack of raiment in some cases to face the cold wind and drifting sand. Mr. Beck tells of throwing everything possible overboard next day to drift in on the tide; finally several suits belonging to him were "hove overboard" but the tide had turned and they drifted out to sea! The party finally reached Magdalena, where the Mexican customs officials confiscated most of the salvage under various pretexts. The party later reached San Francisco by steamer. The expedition had just reached the tropics and Man-O'-War Birds and Caracaras had begun to appear. Duck Hawks and Ospreys were nesting on all the isolated islands and Mr. Beck relates the taking one morning by the party, on Natividad Island, of six sets of *Falco peregrinus anatum*. The nests were in small caves on the ground and

on the tops of cliffs, quite unlike the difficult sites selected by the birds farther north. A number of fine negatives were lost. Sets of Xantus' Murrelet were taken on some of the islands.

• • •

MR. FRED A. SCHNEIDER JR. of College Park, Cal., one of the four promoters of the Cooper Ornithological Club in 1893, was united in marriage on April 26 to Miss Charlotte Phillips, formerly of College Park but later a resident of Seattle. Mr. Schneider was formerly among the most active of Californian ornithologists, but for several years past a course at Stanford University has precluded active work in ornithology. He has long taken a prominent role in the Stanford Glee Club and is a member of numerous college fraternities and other social organizations. As a tennis player he has been ranked one of the champions of Santa Clara county. His pleasing manner has made for him a legion of friends who will wish him and his charming bride a full measure of life's joys. The marriage took place in Seattle and the couple will probably reside at College Park.

MR. O. W. HOWARD writes from Arizona: "While in camp about twenty-five miles below Benson on the San Pedro River (March 25) I saw a pure albino Great Blue Heron. It was flying around in a flock of fifteen or so, and to all appearances was as white as snow. I tried a shot at it at long range with my .38 Winchester but never touched him. I think the birds will probably nest down there for there were fifteen or twenty roosting in the cottonwood trees."

THE FARMER'S CLUB of Santa Clara County was addressed at San Jose on April 1 by W. Otto Emerson of Haywards on "Economic Ornithology." Mr. Emerson gave an excellent hard-sense talk which was illustrated with numerous bird skins and charts showing the structure of the bills of various species. Such lectures are of inestimable benefit to both the fruit-growers and the birds themselves, and a practical illustration of how the gospel of bird protection should and can be spread.

ERNEST ADAMS of San Jose will depart early in June for the Sierras of Plumas and Modoc counties, where he will spend several months working up the birds and mammals of this interesting corner of California. He will visit the Goose Lake region during his trip.

BULLETIN
of the
Cooper Ornithological Club
OF CALIFORNIA.

Published bi-monthly at Santa Clara, Cal., in the interests
and as Official Organ of the Club.

CHESTER BARLOW, - - - - - Santa Clara, Cal.,
Editor-in-Chief.

HENRY REED TAYLOR, - - - - - Alameda, Cal.
HOWARD ROBERTSON, Box 55, Sta. A., Los Angeles,
Associates.

DONALD A. COHEN, - - - - - Alameda, Cal.,
A. I. McCORMICK, Bradbury Block, Los Angeles, Cal.,
Business Managers.

Subscription, (in advance)	One Dollar a Year.
Single Copies,	25 Cents.
Six Copies or more of one issue,	12½ Cents Each.
Foreign Subscription,	\$1.25.

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in arrears for dues.

Advertising rates will be sent on application.

Advertisements and subscriptions should be sent to the
Business Managers.

Exchanges should be sent to the Editor-in-Chief.

Notes of interest and striking ornithological photo-
graphs for illustration are solicited from members.

When extra copies are desired, they should be ordered
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Write plainly and confine your article to one side of the
sheet.

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Entered at the Santa Clara Post-office as second class
matter.

This issue of the Bulletin was mailed May 15.

EDITORIAL NOTES.

Bird Protection Versus Sentiment. Apropos the wave of bird protection which has been sweeping through all ornithological journals of late, it is well to pause and analyze the motives of the several writers before wholly accepting their pleas, bowing our heads to grief and lamenting the wickedness of collectors at large. The person who has not trod the field from dawn till twilight, who knows nothing of the denizens of the woods and tree-tops, and who has never listened to the seabirds' cries above the boom of old ocean, cannot preach the doctrine of bird protection understandingly. Those who have delved into and grasped many of the delightful secrets which ornithology holds, and who are now urging a proper course in protective work, are worthy the thanks of every true ornithologist. Who can doubt the effectiveness of the work of Mr. Mackay in protecting the Terns on certain islands along the Atlantic seaboard, thus preserving a natural beauty? But those who are joining the wild rush simply to be an Audubonian,—to cry "bird protection" and then listen for the applause—all the while condemning legitimate science, are of vastly a different stamp.

The protectionist who would prevent the

slaughter of a single bird is as rampant as the collector who thinks he would be justified in shooting every winged creature of the air. Many excellent pleas have appeared in various journals of late, the writers of which doubtless speak from the heart and wish to eradicate evils,—such as the "egg collecting scourge" as it has been termed—which have some foundation in fact. These writers have studied nature at her best and the birds have no better protector than the ornithologist himself if he be one of conscience, for the collecting of a *proper* number of birds does not imply brutality. But when some ambitious extremist sits himself down to rend apart the current magazines and even reference works, and makes careful note of every mention of a bird slain or a nest taken (over-looking, of course, the observations and spirit of the article in his zeal) and then within his narrow mind evolves a whining article of "bird protection," he has doubtless gratified his ambition and with folded hands and a sort of rapturous serenity may take his seat beside the faithful! His mission has been filled and the birds may hope for oblivion to swallow him up in so far as he will ever protect them. Such maudlin sentiment is hardly worth condemning and those who are really protecting the birds may well regret such additions to their ranks.

Real protection will be accomplished by the live ornithologists who have a practical mission to perform in this respect, but they may well hesitate to take hold of the work if its effectiveness is to be hindered and made nauseating by the misdirected energy of such persons as we have pointed out. That there are many skins collected today which the demands of science do not warrant, everyone knows. A remedy is needed, which, if it does not materially increase the birds, will at least leave many unslaughtered that annually pay the penalty to the over-zealous collector. Those who accumulate vast series of eggs will have to plead hard for justification, although the egg evil is not so wide-spreading as some have claimed. It is well known that almost every bird will lay a second time when robbed and rear a brood as successfully as if the first nest had been undisturbed.

The two really great evils are the collecting of birds in large numbers during the breeding season, when many young in the nest are sacrificed, and the unlimited collecting of skins for mercenary purposes. We cannot condone either offense, which rarely can justify itself, and the evil as it exists in California will shortly be aired in the BULLETIN. Let us have bird protection in a practical way, without all the sentiment which does more than anything else to disgust the majority of well-meaning ornithologists.—C. B.

We are pleased to note that Mr. Robert Baird McLain of Wheeling, W. Va., who became a member of the Cooper Ornithological Club during his attendance at Stanford University, is actively pursuing his work in Herpetology since his departure from the coast. He has recently published three papers under the heading "Contributions to North Ameri-

can Herpetology." One, "Contributions to Neotropical Herpetology" gives a list of neotropical reptiles in the Stanford University Zoological Collection from Mexico, Panama, Colombia and Salvador. The second paper "Critical Notes on a Collection of Reptiles from the Western Coast of the United States" promises to form the basis of a corrected list which will be a guide for future students along this line, while the third paper is entitled "Notes on a Collection of Reptiles Made at Fort Smith, Ark." All the papers bear the imprint of careful work by the author, although the typography leaves much to be desired, but Mr. McLain may well congratulate himself upon putting forth such personal effort.

Bird-Lore for April comes promptly and, if anything, excels the initial number in contents and point of illustration. Typographically, as heretofore, it is without a flaw and will undoubtedly set the pace for ornithological journals in this respect for all time. The illustrations are such as every user of the camera and indeed every ornithologist may delight in. The frontispiece showing a Least Bittern on its nest and two half-tones of a Killdeer and nest, photographed from life, are notable examples of the possibilities of the camera in the field. The leading articles which treat chiefly of avian photography will benefit ornithologists who have photographic field work in view. The other articles are of a popular style, probably calculated to inspire in the "young idea" a proper reverence for the birds, all of which we hope may be effective, though we fear the inherent taste of the youth to "go gunning" cannot be so easily eradicated. Stress is laid upon the published accounts of certain egg-trips, which are condemned, and we fear that sometimes any real merit or good intentions which the "condemned" may have possessed or shown in his article, are lost sight of.

The ninth supplement to the A. O. U. Check List, printed in the *Auk* for January, contains several new races of birds which have been accepted by the Committee on Classification and added to the check list, and which will interest Californians. Among them are *Oceanodroma kaedingi* ANTHONY, Kaeding's Petrel, "Socorro and Clarion Islands north to Southern California"; *Pinicola enucleator californica* PRICE, Californian Pine Grosbeak, "Higher parts of the Sierra Nevada, Central California"; *Carpodacus mcgregori* ANTHONY, McGregor's House Finch, "San Benito Id., Lower Cal.;" *Astragalinus tristis salicamans* (GRINNELL) "Pacific Coast region from Washington to Southern California"; *Pipilo maculatus clementae* (GRINNELL) "San Clemente Island, California"; *Harporhynchus redivivus pasadenensis* GRINNELL, Pasadena Thrasher, "Southern California"; *Harporhynchus lecontei arenicola* ANTHONY, Desert Thrasher, "Lower California."

Through the kindness and generosity of Mr. Lyman Belding, one of its honorary members, the Club has come into possession of a valuable MS. work, which, although unpublished,

forms a companion part to Mr. Belding's well-known *Land Birds of the Pacific District*, dealing with the water birds of the same territory in a most comprehensive way. The bound volume consists of 246 type-written pages with an autographic preface by Mr. Belding, who states it was practically completed in 1886. He says: "The reversing of the Check List of the A. O. U. whereby the water birds came first in the list, instead of last as formerly, found me unprepared to give the time to the water birds that I needed, and supposing that the water birds would soon be needed for publication, I made a hurried compilation, finishing it in five or six weeks and this is the result." These notes, which form probably the most complete and valuable list of the water birds of the Pacific Coast yet undertaken, are largely compilations from different publications, and necessary interlineations have been made up to 1897.

The BULLETIN presents with pleasure in this issue a sketch by Miss Charlotte Bray of Santa Clara, drawn from a description. Miss Bray possesses genius as an artist and we hope to present other of her bird delineations in future issues.



Band-tailed Pigeon Nesting in Santa Clara County, Cal.

During the last four years I have found two nests of the Band-tailed Pigeon, both in Santa Clara county and within ten miles of San Jose. The nests were both found in oak trees in a comparative oak forest. The first was found April 19, 1895 and was built on a horizontal limb of a white-oak tree twenty-five feet from the ground and contained one squab about a week old. The parent was flushed from the nest and well seen. The second nest was found March 11, 1898 and was built near the end of a horizontal live-oak limb thirty feet from the ground and was just completed. Both nests were compact structures, composed of an outer layer of twigs, filled in with pine needles and lined with fine grass. There are no pine trees in the vicinity, and the birds must have carried the needles from a distance. The pigeons used to be very common in the winter time in this vicinity, but are quite scarce now because of the timber being cut down.

W. M. L. ATKINSON, Santa Clara, Cal.

(Although the Wild Pigeon has never been recorded as nesting in the valleys of California, there seems to be no doubt of the above record being true. The locality in which they were found is heavily wooded with live and white oak timber, and has been a favorite feeding ground for this species for years, so it seems not improbable that a few stray pairs remained to breed.—ED.)

Official Minutes of Southern Division.

MARCH.

The Division met at the residence of Mr. Chas. E. Grosbeck in Altadena March 25, with Messrs. Daggett, Schneider, McCormick, Grosbeck, Simmons and Robertson present. Previous minutes were approved. A bill for 90 cents was allowed the secretary. A bill for \$1.25 for typewriting MS. was referred to both Divisions for payment. The name of Mr. Geo. S. Chambliss of Pasadena was proposed for membership. The matter of having a club crest as proposed by Mr. Emerson was adopted, the style, size etc. being left to be decided on by the President and Secretary after corresponding with the Northern Division. Adjourned.

APRIL.

The meeting of the Southern Division was held at the residence of Mr. F. S. Daggett in Pasadena April 29 with the following members present: Messrs. Reiser, Tyler, Daggett, Leland, McCormick and Robertson. Mr. Fordyce Grinnell and Mr. and Mrs. C. A. Moody were present as visitors. The minutes of the previous meeting were approved. A bill for \$1.25 for typewriting was ordered paid. Mr. Geo. S. Chambliss of Pasadena was elected to membership. The names of Mr. and Mrs. A. C. Moody of Pasadena were proposed for membership. Adjourned.

HOWARD ROBERTSON, Division Sec'y.

Official Minutes of Northern Division.

MARCH.

The Division met March 2 at the home of H. C. Ward in Alameda with ten members present and Dr. Ingalls and Mr. H. B. Torrey as visitors. The names of Wm. L. Atkinson of Santa Clara and H. B. Torrey of Berkeley were proposed for active membership. A bill for postage amounting to \$1.24 was allowed the secretary. Southern Division minutes for January and February were read and filed. The following papers were read: "Capture of a California Condor" by H. G. Rising of the Southern Division; "Coming of the Mockingbird" by W. O. Emerson; "Summer Resident Warblers of Arizona" by O. W. Howard of Southern Division; "Nesting of Audubon's Hermit Thrush of the Sierras" by Lyman Belding; "Capture of a Rabbit by a Golden Eagle" by Wm L. Atkinson. W. Otto Emerson presented a sketch to be used as an electro-type for imprinting the stationery of Club members and official publications of the Club, the same consisting of a shield on which is figured a Californian Quail and an artistic hummingbird's nest and eggs, together with the name of the Club. This was adopted subject to the voice of the Southern Division. Adjourned.

MAY.

The Division met May 6 at the residence of C. Barlow in San Jose. Wm. L. Atkinson of Santa Clara and H. B. Torrey of Berkeley were

elected to active membership. A design for a club crest as drawn by Mr. Emerson was finally decided upon. A bill for \$1.29 current postage was allowed. The following names were proposed for active membership to be elected at the next meeting: Milton S. Ray, San Francisco; N. M. Flower, Copperopolis; Chester C. Lamb, Berkeley and E. V. Warren, Pacific Grove. A letter was read from R. C. McGregor, secretary of the State List Committee urging all members to send MS. of county lists. The work was commenced in 1895 and will now be pushed through rapidly by Mr. McGregor. Southern Division reports of March 25 and April 29 were read. A biographical sketch of J. Maurice Hatch, a deceased member of the Southern Division was read. Several papers were read after which the meeting adjourned to again convene at Alameda on July 1.

C. BARLOW, Division Secretary.

Publications Received.

- Auk*, XVI, No. 2, April, 1899.
- Bird Lore*, I, No. 2, April, 1899.
- Bulletin of the Michigan Ornithological Club*, III, No. 1, Jan., 1899.
- Journal of the Maine Ornithological Society*, I, No. 2, April, 1899.
- Maine Sportsman*, VI, No. 68, April, 1899.
- Museum*, V, Nos. 5 and 6, March and April, 1899.
- Oologist*, XVI, Nos. 3 and 4, March and April, 1899.
- Ornithologisches Jahrbuch*, IX, No. 4.
- Osprey*, III, Nos. 5, 6, 7 and 8, Jan.-April, 1899.
- Plant World*, II, No. 7, April, 1899.
- Wilson Bulletin*, No. 25, March, 1899.

Mr. Walter F. Webb of Albion, N. Y. informs us that he has secured an egg of the California Vulture from California, taken on March 7 last, which is considerably earlier than the average nesting date.

Mr. Henry C. Johnson, whose contributions from Utah will be noticed in the BULLETIN, is an active member of the Cooper Club, having joined during his several years' residence in California, the Club's constitution permitting the retention of membership where a member leaves the state.

Mr. Frank H. Lattin of Albion, N. Y. graduated from the Medical Department of the University of Buffalo on April 25, and his numerous friends on the coast will wish him as bright a career as a *medico* as he has attained in the capacity of editor of the *Oologist*. The *Oologist* will doubtless be published regularly as heretofore.

Mr. W. Edgar Taylor of Ruston, La., announces the early publication of the *Gulf Fauna and Flora Bulletin* as a bi-monthly of not less than thirty pages, at the subscription price of \$2.50 per year. The *Bulletin* will be primarily one for biologists "devoted to the biological interests of the Gulf section." Its scope apparently extends over a field which no current journal has yet attempted to cover entirely.

Exchange Notices.

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COOPER ORNITHOLOGICAL CLUB.
OF CALIFORNIA.

VOL. I.

Santa Clara, Cal., July-August, 1899.

NO. 4.



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PHOTO BY C. BARLOW.

NEST AND EGGS OF THE PLUMED QUAIL.

SIERRA NEVADA MTS. 1899.

(See page 60.)

BULLETIN
— OF THE —
COOPER ORNITHOLOGICAL CLUB.

A BI-MONTHLY EXONENT OF CALIFORNIAN ORNITHOLOGY.

Vol. 1. No. 4.

Santa Clara, Cal., July-August, 1899.

\$1.00 a Year.

Another Chapter on the Nesting of *Dendroica occidentalis*, and Other Sierra Notes.

BY C. BARLOW, SANTA CLARA, CAL.

[Read before the Northern Division of the Cooper Orn. Club, July 1, 1899.]

ESTING in a four-foot cedar tree in the forest, with tall cedars and pines towering about it, the third nest and eggs of the Hermit Warbler were destined to be found. This nest was discovered by Mr. H. W. Carriger, who was one of our party to visit the Sierras from June 6 to 11, and to Mr. Carriger belongs the credit of taking the set, and through his kindness I am permitted to describe the nest and eggs, which constitute the third authentic set on record.

Our location was Fyffe, El Dorado Co., Cal., at an elevation of 3,700 feet, in the pine belt. Black-throated Gray, Calaveras and Hermit Warblers were present in about equal numbers, and could be classed as common. They were observed chiefly in the black oaks where most of the smaller birds seem to secure their food supply and the singing birds were doubtless males. On June 8, while passing through the timber, Mr. Carriger came upon a nest of the Hermit Warbler placed in a small cedar tree but $2\frac{1}{2}$ feet from the ground. The female was off at the time but soon appeared in a near-by bush. The nest was built on a small limb near the trunk of the sapling, which is certainly an unusual nesting site for this tree-breeding species to select.

The nest held four badly incubated eggs and we returned in the afternoon

to photograph and collect the set. A photograph was taken of the sapling and nest, showing the latter's position, after which we prepared to secure a picture of the bird when she should return and alight on the nest. All twigs which threw shadows on the nest were cut away until it was fully exposed to the sun. The camera was then set up about four feet from the nest, a string was attached to the shutter, and we prepared to conceal ourselves in the bushes. Mr. Welch, who carried the gun (a very necessary collecting adjunct in some cases) unconsciously deposited himself upon a small ant-hill, and heroically withstood their onslaughts for an hour, while Mr. Carriger crawled into some deer brush and I sat down ten feet away behind some small cedars to await the coming of the bird and take the picture. Soon the female warbler appeared and grew nervous at the army of invaders which surrounded her, the lense of the camera seeming most terrifying of all. Soon, however, she grew quite fearless and hopped about the bushes and in the pine above me, sometimes approaching within three feet and feeding all the while. Several times she hopped close to the nest, but a glance at the camera caused her to lose courage and around the circuit of bushes and trees she would go again, finally approaching the nest.

Meanwhile we were keeping as quiet in the hot sun, as numerous ants, flies, mosquitoes and other winged abominations would permit. Finally, the bird made her last circuit, approached the bush and hopped up on the edge of the nest; the shutter clicked and the watch said we had waited something over three hours for the photograph. This, however, was not forthcoming, for when I reached home and developed the plate it was almost completely "fogged," there being but an outline of the bird and nest. While our direct object failed I cannot say I regret my three hours' close acquaintance with little *Dendroica occidentalis*.

Mr. Carriger collected the nest and eggs which he describes as follows: the nest is composed outwardly of small, light weed stems and bleached pine needles, lined with cedar bark and horsehair. The nest measures: inside diameter $1\frac{3}{4} \times 2$ inches; outside 3×4 inches (extremes); outside depth 3 inches; inside depth $1\frac{1}{2}$ inches. Placed $2\frac{1}{2}$ feet from the ground in a small cedar, resting on a small limb about two inches from the trunk. The eggs measure .66x.52; .65x.53; .66x.53 and .67x.54 inches, and are marked principally at the larger ends, some confluent, with reddish brown and a few spots of black. The markings are heavy and more in the form of a wash than distinct spots. The female parent was secured. We noticed that the male Hermit Warblers were usually singing from the tall pines and black oaks and it is unlikely that the female sings during the breeding season. The position of the male bird has little to do with the location of the nest, and in the case of Mr. Carriger's nest the male did not appear for nearly an hour.

On June 9, two miles above Fyffe I saw a pair of Hermit Warblers and watched the female, thinking she had left her nest to feed. I watched her for half an hour, during which time she searched the deer brush and small trees industriously for food, covering both sides of the road, and the number of worms consumed was really remarkable. Finally I discovered her feeding a young bird in the road and had no trouble in capturing it. It was just out

of the nest and could not fly apparently. The plumage consisted of a few pin feathers, wing coverts and down of a dark grayish color, with two white bars on each wing. After examining it, I left the bird perched on a low limb.

While walking along a narrow trail in the woods on June 9, a Calaveras Warbler (*Helminthophila ruficapilla gutturalis*) flushed a few feet ahead of me and I found the nest beneath a small cedar bush, built in the "mountain misery" flush with the ground. The cavity was lined with soap root fiber and the nest contained five half grown young.

Three nests of the Plumed Quail were found by us, all built in the tar-weed or "mountain misery" (*Chamæbatia foliolosa*), and all near paths or roads. The one shown in the illustration was built at the foot of a large cedar tree, and was nicely concealed and shaded by the foliage of the weeds. The nesting cavity was about six inches across and three inches deep, lined with feathers from the parent bird. It held ten eggs, in which incubation was well advanced. Several times the bird was flushed in order that we might observe the nest, but she was persistent and always returned. The photograph was taken in the early morning of June 7, at which time the bright sunlight presented a variety of shades in the forest. The "mountain misery" was in full bloom at this time and the nature of the shrub is well illustrated in the half-tone photograph. Another nest containing 11 incubated eggs was found on the same day, placed amongst the tar-weed in the shade of large cedars. This nesting cavity was about six inches in depth, and composed of dry leaves from the tar-weed and lined with feathers. From the nests observed it seems certain that the Plumed Quail makes a nest of its own, for the one last mentioned was substantial enough to bring home. On June 10 Mr. Carriger took a nest and 10 eggs built beside the road in the tar-weed three miles above Fyffe. The whistle of the Plumed Quail could be heard commonly through the woods, but the birds were seldom seen.

Nesting and Other Habits of the Oregon Towhee.

BY D. A. COHEN, ALAMEDA, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Sept., 1898.]

THIS variety, *Pipilo maculatus oregonus*, was here at one time known by local collectors as the Spurred Towhee, *P. m. megalonyx*, but now as near as I can determine the true Spurred Towhee is not found nearer than Monterey County and our Alameda County variety is *oregonus*. With us the Oregon Towhee is resident, spending the late summer until spring somewhat gregariously, caused probably more from choice of location than from sociability, but it is not observed in pairs so much as the Californian Towhee, *P. fuscus crissalis*, at the period just stated. At this season it is wariest, secluding itself to the underbrush, but after pairing in the spring is much more easily approached, owing in a great measure to its uneasiness at the approach or the invasion of its nesting site. At this time, especially if a nest is under construction, both birds display great uneasiness, flitting about the tops of the low growth, uttering their unmusical "chir-chee-wee" or "che-wee-ee" but their utmost anxiety is displayed after the young are hatched. The birds continue their various notes so long as a person remains in the vicinity of the nest, and approach quite close if the person remains reasonably quiet. Presuming the female does all the incubating, the male at this period generally betrays the vicinity of the nest by his nervousness, his notes first attracting attention. He is often heard, from his perch, uttering notes, caused by nothing further than inclinations. The notes at any time are little varied. After the young are grown very little is heard of the Oregon Towhee's vocal powers unless the bird is driven from its retreat or is suddenly startled.

Being almost terrestrial it is also partly arboreal, often flying short distances from tree to tree and when pursued often forsaking the underbrush for trees. Its food is obtained mostly from the ground chiefly by scratching, after the manner of the robin, and is mostly insectivorous. It is one of the last birds

to settle down for the night. I have not met this bird throughout the country as abundantly as I expected to and among hundreds of nests I have found only one was away from Alameda. This nest was found by accident. As I was resting in a densely wooded locality thickly grown up with underbrush where I had for a number of years noticed one pair of Oregon Towhees, yet never expecting to find the nest in such a wild place, a movement in the bushes close by almost caused me to shoot at a supposed wood rat, but upon investigation it proved that it was the flushed bird slipping back onto the nest, containing a handsome set of four eggs, the nest elaborately composed of weed stems and a larger proportion of dead leaves, situated two feet from the ground among dense brambles and fallen leaves, and about eighteen inches from the top of the mass, and several feet from the road.

All the nesting data about to be related is from my home in Alameda and recorded from a radius of less than 400 yards. From 1886 to about 1892 I found annually an average of eight sets and a few nests containing young. There were then approximately nine pairs of birds and many sets were second sets of the same season. At that time the nests were placed on the ground with very rare exceptions, but owing to an army of cats that had become self supporting there were in 1898 only seven pairs of Oregon Towhees on the premises and nearly all the nests for the last five or six years were placed off the ground, especially on clumps of prickly wild blackberry vines. Having freed the premises from the cats by late spring, the Oregon Towhees began to build more on the ground, also the California Partridges commenced to resume their choice nesting sites. The Oregon Towhees' usual nesting site is under a small wild blackberry vine growing among the grass, or under low growths of these vines, always more or less in the shade of a tree. Occasionally under

the foliage of cypress limbs spreading over the ground, more commonly under myrtle, less commonly among ivy growing along the ground, but always in a partly shaded spot. One nest was under the drooping leaves of an artichoke plant and one beside a laurustinus hedge among a bed of verbenas was subjected to almost all the sun. In all these ground-nesting cases the bird scratches a hollow in the sandy soil or leaf mould about an inch deep before bringing building material. One nest, four feet from the ground, was fashioned into the rather flat top of a partially decayed oak stub on a live oak, the trunk of the tree and the stub being overgrown with ivy. It contained a set of four eggs and as near as I remember, fifteen eggs of the California Partridge. The female towhee was incubating on top of the pile. The partridge occasionally deposits one or two eggs in a towhee's nest built on the ground. One nest on the ground contained three towhee's eggs and eighteen partridge's, the towhee having abandoned the nest after six or eight partridge eggs were deposited in it. One peculiarly situated nest was almost under a log lying under an oak tree; it also contained one partridge egg. Several years ago I found a high nest, nine feet up in a large cypress tree and several others about this distance from the ground, among oak branches intergrown with wild blackberry vines, while in 1898 I noted a nest twelve feet up in the same cypress tree. No eggs were laid in it. One nest, one foot off the ground, was in a geranium bush, one in a cypress hedge five feet up, one, unused, in a small apple tree eight feet up and several in low thick garden shrubs, while others were on top of low clumps of wild blackberry vines so that the leaves afforded concealment and protection from the sun and in rare cases trees afforded no shade.

The earliest nesting date is March 27, 1888, the next earliest, April 4, 1896, with complete sets, yet April 20 is none too early for first sets. Sets of fresh eggs in June and July are indicative of second or third sets, as I have experimented to demonstrate this by taking the first and second sets of particular

pairs of Oregon Towhees causing them to build and lay three times in one season. As an instance of this towhee's devotion to a particular spot, I removed in one season three nests and sets of one pair of birds and an average of two sets a season in other seasons from the same pair for four or five years in succession. Their nest was always within twenty feet of the center of a low growth of wild blackberry vines under a large oak tree. This experiment also goes to demonstrate that oologists do not, by taking a set of eggs, destroy that number of birds, as some people think it does. I can quote instances of other species of birds producing a new nest and set of eggs in a remarkably short period after being robbed of the first or even the second set, if it will be of any help to the oological fraternity. The towhees require from two to three weeks after being robbed to produce a new domicile and eggs; some other species less time. The second nests usually contain less material than the first, and as an example of this assertion and to demonstrate the devotion of the birds to a certain area of their choice, in 1897 I took a second set from under a small blackberry vine in a wooded pasture and the third set was found three weeks later about sixty feet distant from the site of the first under a very small vine where the grass had been entirely eaten down and was very scant in material.

I can never think otherwise than that Major Bendire was correct in asserting that eggs of individual birds in consecutive sets bear marked resemblance to each other, for, by taking into account the similarity of a late set to the preceding set of the same year, both sets taken nearly from the same spot, the evidence is almost conclusive, not alone in the case of the Oregon Towhee but with many other birds, and to make it conclusive, in my opinion at least, I have noticed that eggs taken from year to year from the same small area occupied by one pair of birds, bear unmistakable resemblance in shape as well as in coloration and style of marking. In a large series, just as they come, the shape, coloration and marking of different sets are remarkably

wide apart; some are long, either oval or pointed at one end, seldom pointed however, while others are much rounded. The difference in size and shape of eggs in one set is occasionally commendable and the style of marking may be odd, also the ground color, while very rarely all these characteristics present themselves in a set of four eggs.

Four eggs is the average number to a set, often three, and only twice have I found five eggs. I have taken two sets of two eggs each, all much below medium size; three eggs were well incubated and the fourth was infertile. In early numbers of the *Nidiologist* I referred to having found sets of unusually small eggs, and individual birds laying successive sets of such eggs. The only abnormally large egg I found was among a set of three eggs. One nest of four very small eggs contained two that were infertile, two heavily incubated and two of the California Partridge, heavily incubated.

The nests bear a great similarity in material used. The general composition is a lot of dry leaves for a foundation or for a lining over the earth, strips of bark, stalks of weeds, coarse dry grass, occasionally a few shavings and rubbish that can be worked into the foundation and rim. The lining is the least variable, being neatly laid, rather crosswise, and consists of a certain kind of fine, bright, dry grass which is almost all stem. Occasionally there is a little less of this grass when long hair is substituted, but this they seem unable to place so neatly as the California Towhee. A nest under an oak in the

center of a large grain field was composed of a few pieces of weed stems, the balance and the lining of short, rather coarse black rootlets, the wild grass in this case being probably too far distant for birds of short flight to carry. A nest built near a pile of dead cypress branches was composed chiefly of strips of bark from the branches. Other nests whenever found under pine trees are invariably lined totally with dry pine needles, the birds evidently preferring this pliant material of suitable length to the kind of grass usually used and growing close by.

The young when first hatched are black with yellow gapes and covered with thin greyish-white down. The incubating bird sets close and the nest is usually found by flushing the bird which at times flushes at the sound of approach fifty feet away, always betraying the location by rising high enough into the air to be detected, though occasionally slipping away through cover to a short distance, only to make a fuss and cause a search for the nest. At times the bird hops along a few feet before rising.

Some years ago, one winter, I beheld an Oregon Towhee on top of a leafless apple tree truthfully imitating the California Jay's commonest notes, very different from its own. From my close point of observation I could detect the movements of its throat and bill and determine that none other than the object of my gaze was for the time being the "mockingbird", the only one of its kind I have had the fortune to hear.

Summer Resident Warblers of Arizona.

BY O. W. HOWARD, LOS ANGELES, CAL.

[Read before the Southern Division of the Cooper Orn. Club, Feb. 25, 1899.]

VIRGINIA'S

(Concluded.)

This species is quite common in the pine regions throughout Arizona, but I have not seen it at a lower elevation than 5000 feet. Unlike other warblers in this section, they keep almost entirely in the underbrush, where they are continually on the move and at the same time uttering a quick chirp as if in distress. Owing to the dull plumage

and retiring habits of this bird comparatively few are seen. The nests are placed on the ground, under a bush or tuft of grass and are made of fine straws, rootlets and fibres, loosely put together. Except when the birds have young, they are very shy about going to the nest, and for this reason few nests are found with eggs while more are found containing young birds.

On our trip in 1896, Mr. W. B. Judson found a nest containing four fresh eggs on the 17th day of May. It was placed on a side hill under a tuft of grass at an elevation of about 7000 feet. On June 1, Mr. Judson found another nest in the same locality and after watching the bird for fully a half hour she went to the nest which was placed on the edge of a bluff in a bunch of grass, under some pines. After seeing the bird go to where we supposed the nest was situated we made a careful search and nearly stepped on it several times when Mr. Judson finally found it. This nest

AUDUBONS'

Audubon's Warbler is quite scarce during the summer months, as only a few of them remain to breed. Like the Olive, they are found high up in the pines along the tops of the ridges. I found several nests in 1897 and 1898 in Huachuca Mountains. The nests are very loosely constructed, being composed almost entirely of loose straws with a few feathers and hair for a lining. The eggs, generally four in number, are of a dull white ground color with light brown spots and blotches and under shell markings of a dull lavender. One nest containing four slightly incubated eggs, found on June 14, 1898, was placed in a red fir tree about fifteen feet up, which is unusually low for this species.

Another nest taken June 22, 1898, was placed in the lower branches of a sugar-pine about fifty feet from the ground, and twelve feet out from the trunk of the tree. This nest, like many others, could be taken only by using a long rope which I always carry with me. One end of the rope is drawn up into the tree by means of a cord and is passed around the trunk over a limb diagonally above the nest; the rope is then pulled around until both ends meet on the ground, thus making a double rope. The party on the ground

BLACK-THROATED

These birds are very plentiful during the breeding season in the mountains of Southern Arizona. They may be found from an altitude of 4000 to 9000 feet, but are more common in the oak

contained four eggs well advanced in incubation. The eggs are of a dull white color, finely speckled over the entire surface with brown and cinnamon. The nests of the bird, like those of other ground-nesting birds of this locality, are destroyed by jays and snakes. The jays steal both eggs and young. Often a whole band of these winged wolves will sweep down on a nest and in less time than it takes to tell it they will devour the contents and destroy the nest, the pitiful notes of the helpless parents being drowned by the harsh notes of the marauders.

WARBLER.

then walks out with the rope until it reaches a point within a foot or two of the nest and holds it as tight as possible so that the rope is quite often at an angle of 45°. The party up the tree then twists the rope around one leg and slides down to a point even with the nest where he hangs on with one hand and with the other takes the eggs from the nest, one by one, and places them in his mouth. This seems to take half an hour but probably takes a half-minute. The next thing in order is to cut the end of the limb off with the nest. This is done with a small hatchet carried in the belt and is the most aggravating job I know of; it is something like playing golf. You strike at the air three times to every time you hit the limb and the worst of it all is that you cannot swear because you have your mouth full of eggs. When the limb is nearly severed you put your hatchet back in your belt or drop it on the rocks below to keep it sharp. Then you pull the limb off and hold it in one hand while you slide down the rope to the ground, where you find a shady place and lie down while the other fellow pulls the rope down. Three or four innings like this every day will give you a fine appetite for supper. If you don't believe me, try it!

GRAY WARBLER.

belt, from 4000 to 7000 feet altitude, where a great many of them breed. Nevertheless, comparatively few nests are found. I believe the reason for this is, because unlike other warblers, these

birds do not have a note of alarm nor do they show any signs of breeding, and unless you see them carrying building material one might as well give up watching them for they could keep you busy all day doing nothing else. The birds are constantly on the jump, apparently catching insects. Even when flushed from the nest they will hop about in their usual unconcerned manner. Many nests are placed in the dense thickets of scrub oak which abound in this section. They are placed in the forks of the larger limbs quite often within reach of the ground, while other nests are placed high up in pines. The nests are very compact, of a deep cup shape, much like those of the Yellow Warbler. The nesting material varies according to the locality.

PAINTED REDSTART.

One of the prettiest of all our warblers. The markings of red, white and black are very clear and the birds seem to take great pride in showing off their colors. With their wings partly open and tail spread they may be seen hopping about on mossy banks or stumps of large trees, generally in the vicinity of a spring or waterfall; now and then they will fly up to catch some insect, much after the manner of the flycatcher. Breeding commences early in April and lasts until June. I found two nests just completed on April 11, 1897 in the Santa Catalina Mountains, near Tucson, Ariz., and also found a set of fresh eggs on June 1, 1896 in the Huachuca Mts.

The nests are usually placed on slop-

RED-FACED WARBLER.

These birds are quite common in the mountains of Southern Arizona, especially during the spring migration. I have seen as many as four or five feeding in one tree. They become scarcer as the season advances and at the time of breeding comparatively few of them remain. The nests are placed on the ground under a bunch of grass or near a fallen log, where leaves have drifted. It would be impossible to find them without watching the birds and even then one must be very quiet and keep out of sight as much as possible, for the birds seem to realize the danger of go-

From a nest found May 20, 1896. I secured a fine set of four fresh eggs. This nest was placed in an oak sapling, in an upright fork about ten feet from the ground. I visited two other nests the same day. These were placed in similar situations. I had found the birds building these some time before and expected to procure a fine set of eggs from each, but to my disappointment both nests had been destroyed, the work, undoubtedly, of Arizona Jays. I found other nests, some placed in large white oaks and some in sycamores and have known the birds to build high up in pines. The eggs are dull white, speckled and blotched with grayish-brown. There is great variation in the color and size, even in eggs of the same set.

REDSTART.

ing ground under a projecting rock or bunch of grass and, as a rule, in the vicinity of a spring or waterfall where there is a rank growth of ferns or grass. These nests are loosely constructed as a rule but sometimes are quite compact and are composed of fine straws, vegetable fibres and leaves, with a lining of fine grass and hair. The nests I found were between 5000 and 8000 feet elevation. The eggs are more nearly oval in shape than most other warblers' and are slightly larger than the average. They are pure white, speckled with markings of cinnamon and lavender over the entire shell, but more heavily at the larger end, sometimes forming a wreath.

WARBLER.

ing to the nest.

I found my first nest on May 18, 1896 at an elevation of about 7000 feet. It was placed on a side hill under a tuft of grass. The composition was mostly of fine straws with a few leaves for lining. This nest contained four perfectly fresh eggs, pure white in color, marked with fine specks and blotches over the entire shell, and more thickly at the larger end. There is quite a variation in the eggs, both in size and marking. The other nests I examined were placed in similar situations and the full sets were invariably of four eggs each.

THE PASSING OF ALFONSE FORRER.

ALFONSE FORRER died at his home in Santa Cruz, Cal., on March 15, 1899. His life was one of activity, constantly associated with nature. Few have left behind them so much to perpetuate their memory as has the subject of this sketch. It has in years gone by given me much pleasure to listen to the many interesting narratives which came into Mr. Forrer's life as a naturalist, I having lived a number of years in the same city which Mr. Forrer had chosen for his home, and where he died. Alfonse Forrer was born in London in 1836. His early education was secured in England, after which he went to Zurich, then a great center of learning. He spoke fluently, as well as read and wrote German, French and Spanish, and also English, in which he was possessed of more than ordinary learning.

At an early age he emigrated to the United States, and at the outbreak of hostilities in 1861 he enlisted with the 1st Louisiana Cavalry, serving as First Lieutenant in the cause of the North. At the close of the war Mr. Forrer accepted a commission to collect zoological material along the west coast of Mexico and the United States for the British Museum. He made extensive collections of mammals, birds, birds' nests and eggs, shells, reptiles and insects in the state of Sinaloa and Durango and the Tres Marias Islands, Mexico.

Later several months were spent at La Paz, Lower California, thence to San Diego and up the coast. Some time was spent in search of natural history subjects in the high Sierras from Lake Tahoe northward through Sierra, Plumas, Lassen and Modoc counties. Much valuable material was collected in the vicinity of Klamath Lake, Oregon, Fort Lapwai, Idaho and on Vancouver Island. After having supplied the British Museum with large series of everything taken, other museums were supplied, in which connection Mr. Forrer made four trips to Europe.

The discoveries which perpetuate the name of Forrer are a goldfinch, *Chrysomis tris forreri*, collected near Mazatlan, Mexico, and named in his honor by Sclater and Godman. Other forms are a vireo, *Vireo flavoviridis forreri* and a parrot, *Chrysotis forreri*. Besides these we have a frog, a snail, a star fish and several plants that bear his name. In ten years of field work



it is naturally expected that Mr. Forrer met with many obstacles that impeded his work and many instances of pleasure, as well as some that were annoying and embarrassing. An instance of this kind happened while he was collecting in a "backwoods" region in eastern Oregon. Mr. Forrer was desirous of getting a few sets of eggs of the Sage Grouse. His own efforts proving repeated failures, he at last resorted to

an advertisement in a local paper, offering to pay a good cash price for several sets of eggs of the Sage Grouse. In a few days a small country lad stood in Mr. Forrer's presence offering a set of nine eggs of the desired species. Mr. Forrer accepted these, paid the stipulated price and the lad returned to his country home. The next day the lad brought two more sets which were also taken. Two days later more sets were brought! Mr. Forrer's suspicions were then aroused and after a critical examination it was decided that the eggs were frauds and they were thereupon destroyed. Mr. Forrer gained in experience, while the boy was richer by several dollars as the result of a clever imitation which could not have been done so neatly except by one who knew the bird and its eggs well. I had the pleasure of examining one of these eggs which Mr. Forrer saved for future reference. I concluded it was the egg of a small breed of chicken, carefully wrapped in cloth having small, irreg-

ular markings, and by applying vinegar the print was left on the shell of the egg.

Mr. Forrer was widely known in Europe as well as in the United States among the older naturalists, but less so with the younger generation, since in his later years active field work was abandoned, excepting, perhaps, in shells, star-fish and sea mosses. The seashore about Santa Cruz offered many advantages in these branches. I have seen Mr. Forrer, accompanied by his wife, collecting the beauties that lurked among the rocks as the tide went out, on many occasions. In the death of Alfonse Forrer we lose a noted naturalist, one who has been a friend to many a struggling youth in helping him along the difficult path to a better knowledge of avian life, the beauties of the sea and the freedom that can be enjoyed in nature study.

GEO. F. BRENINGER.

Phoenix, Arizona, May 21, 1899.

Some Summer Birds of Palamar Mountains, from the Notes of J. Maurice Hatch.

BY RICHARD C. MCGREGOR.

THIS list of birds, observed by Mr. Hatch on the Palamar Mountains, between June 16 and 21, 1897, has been arranged from notes which he sent me for use in the state list. The mountains have an altitude of 5000 to 6000 feet and are covered with firs, oaks and cedars. Ferns and under-brush of various kinds abound. Numerous small streams of water are present.

- 1 *Oreortyx pictus plumiferus*.—Fairly common. A nest found June 19, contained five well incubated eggs.
- 2 *Lophortyx californica vallicola*.—Common at western base of the mountains. A female taken June 16 had an egg in the oviduct.
- 3 *Columba fasciata*.—About 100 birds seen near western base of mountains on June 15.
- 4 *Zenaidura macroura*.—Common at western base of mountains. One young in the nest found June 15.
- 5 *Pseudogryphus californianus*.—Breeds. One seen on the 16th and four more two days later.
- 6 *Cathartes aura*.—Quite common both

at the base and on the summit.

- 7 *Buteo borealis calurus*.—One pair seen on the summit.
- 8 *Falco sparverius deserticolus*.—Fairly common on the summit of the mountains where it probably breeds.
- 9 *Melanerpes formicivorus bairdi*.—Very common at this time of the year. Some young birds and adult males were collected, the latter having the testes very large.
- 10 *Colaptes cafer*.—Fairly common summer resident.
- 11 *Calypte costæ*.—A few pairs seen.
- 12 *Calypte anna*.—A few pairs seen.
- 13 *Myiarchus cinerascens*.—A few seen. One taken on the 19th.
- 14 *Contopus richardsonii*.—Common. Nests from 25 to 50 feet from the ground. Two nests collected contained two and three eggs respectively.
- 15 *Otocoris alpestris chrysolaema*.—A few pairs seen on the western slope of the mountains.
- 16 *Cyanocitta stelleri frontalis*.—Common. Both young of the year and new nest

found.

17 *Corvus americanus*.—A few seen at west side and 18 five miles east of the summit, feeding on the myriads of grasshoppers that were present.

18 *Sturnella magna neglecta*.—Common in the mountain meadows.

19 *Icterus cucullatus nelsoni*.—Common at western base and on the top of the mountains.

20 *Scoleophaeus cyanocephalus*.—A few young of the year seen.

21 *Carpodacus purpureus californicus*.—Scarce. Very shy and difficult to approach.

22 *Carpodacus mexicanus frontalis*.—A small flock and a few pairs seen near an orchard. Four fresh eggs taken on the 19th.

23 *Chondestes grammacus strigatus*.—Fairly common.

24 *Spizella socialis arizonæ*.—A few pairs seen.

25 *Junco hyemalis thurberi*.—Abundant. Nestlings and new nests observed on the 19th.

26 *Pipilo maculatus megalonyx*.—Common. Fresh eggs collected.

27 *Zamelodia melanocephala*.—Fairly common. Young were seen, just able to fly.

28 *Cyanospiza amarea*.—Common. Probably breeds.

29 *Piranga ludoviciana*.—Few seen. A male was taken in breeding plumage and with greatly enlarged testes.

30 *Petrochelidon lunifrons*.—A few pair.

31 *Tachycineta thalassina*.—Common. Breeding in natural cavity of trees.

32 *Phainopepla nitens*.—Common at western base of mountains where they were eating alder berries. One nest in course of construction was found.

33 *Vireo gilvus*.—Common at summit.

34 *Dendroica aestiva*.—Fairly common.

35 *Troglodytes aedon aztecus*.—Very abundant, more than twenty nests containing young being observed.

36 *Certhia familiaris occidentalis*.—Rare.

37 *Sitta carolinensis aculeata*.—Common.

38 *Parus inornatus*.—A large flock noted on the mountain side.

39 *Parus gambeli*.—Common.

40 *Sialia mexicana occidentalis*.—Common. Set of four eggs taken on the 17th.

Observations on the American Raven in Southern California.

BY C. B. LINTON, WHITTIER, CAL.

DURING my collecting experience I have found the American Raven (*Corvus corax sinuatus*) nesting in almost every range of foot-hills in Los Angeles and neighboring counties. Although it is being continually driven deeper into the wildest and most inaccessible portions of its former haunts by the encroachment of civilization, it is still abundant in certain localities. In the Puente hills of Los Angeles County I have taken numerous sets of eggs of the American Raven in the past four years. A tramp of a day or two through this range will reveal to the collector dozens of large, compact nests now unused excepting by an occasional Great Horned Owl or Western Redtail, whereas they were formerly occupied by ravens.

In February, 1895, I found my first pair of ravens putting the finishing touches to a huge nest built on a ledge of rock about fifty feet from the bottom of a ninety foot cliff. I was greatly discouraged at first as this nest seemed

inaccessible, but on March 14 I persuaded a friend to climb to it, and he being experienced in the art, reached the nest without difficulty and secured a handsome set of five fresh eggs, which measured 2.09×1.37 ; 2.06×1.37 ; 2.04×1.35 ; 1.88×1.31 and 1.79×1.28 . In color they were bluish-green, heavily covered with blotches of dark brown and quite similar to eggs of the American Crow. A set of four slightly incubated eggs was taken from this nest on March 28 and I procured another set of six eggs from a neighboring cliff on April 20, evidently from the same pair of birds. The eggs of this set vary greatly in size and coloration, one being very small and slightly marked.

I have noticed quite an oddity in three sets of eggs taken from a pair of birds in 1897. Each egg has a "knob" on the larger end, making the series quite a curiosity, and I have noticed the same deformity in a set taken this season (1899) from a new nest near the

site of the old ones, the new nest being composed of the remnants of the several old ones, with some additions. The raven is very persistent and I have known one pair to lay four sets of eggs in one season and would probably have laid a fifth but unfortunately the nest was destroyed.

I have occasionally found them nesting in the steep banks of deep, narrow gulches, but usually they prefer a large gravel cliff in some secluded part of the hills, and in every instance the nests have been lined with sheep's wool gathered from the numerous bands of sheep feeding in the vicinity. I had intended to pay my respects to the ravens this year but have been otherwise engaged. However I procured a handsome set of Duck Hawk $\frac{1}{2}$ from a deserted raven's nest on April 5, 1899, and feel that since I cannot help it, that I should allow my birds a short vacation.

■ ■ ■

FURTHER COMMUNICATIONS ON BIRD PROTECTION.

"CIRCUMSTANCES ALTER CASES."

To My Fellow Collectors:—

"The science of ornithology demands the collecting of any reasonable number of birds to further its ends, and personally I have taken the lives of birds with as much zeal as any, when the skins were desired for actual use." I believe that I stand on the same ground as that defined by Mr. Barlow in our last BULLETIN. I am also in sympathy with the position taken by Dr. Coues in his editorial in April *Osprey*. To put the matter in my own words, I believe in collecting all the scientific specimens, birds' skins and eggs included, that we may want to use. I believe in series and large series. If, of one species, we can use too mammals or 300 fish, we had better take them. If specimens are to be compared, if we can learn anything from them, or if we can pass them on to another who is in need of the material, I believe we are justified in collecting in any quantity to supply that demand. I do not believe in collecting for the milliner or taking birds in nesting time when the same plumages may be had before nesting. I have refrained from shooting many birds because I thought they

had nests and I have shot birds when I knew they had eggs or young. "Circumstances alter cases."

In the numerous letters which have appeared in the last six months concerning "bird slasher" and "egg hogging", there seem to be about three grounds upon which the various authors condemn collecting. It is wrong to kill birds and take their eggs because (1) it is cruel; (2) it is of no use or scientific benefit or (3) it will exterminate the species. If it is cruel to kill wild birds and take their eggs then we had better stop killing and robbing the domestic birds. I do not agree with the Rev. Mr. Henninger that "the forcing a poor Flicker to lay 71 eggs in 73 days" is cruel. How many eggs is a poor barn-yard fowl forced to lay in a year? Is it not cruel to force her to hatch duck's eggs? It is not commonly so considered. The question of cruelty is one which we cannot consider in this connection as it is a matter of personal opinion and not subject to discussion any more than religious dogmas are.

The value of large series of eggs from a single species is largely a matter of personal opinion. For my part I think as much can be learned from 150 eggs of the Red-tailed Hawk as from an egg each of 150 species of birds. In this connection it is hardly worth while to call attention to the indignation of F. H. K. in his review of *Eggs of Native Pennsylvania Birds, Osprey* for November, 1898, where he condemns the collecting of more than 7 eggs of a species and of oological abnormalities altogether. The number of sets of a species which you will take must be regulated by yourself and decided without the help of the protectionist. Everyone learns by collecting a few eggs for himself. There is one class of collectors which should certainly be suppressed and they have been well dealt with, in writing, by Mr. Witmer Stone. See *Auk* XVI, p. 55. For the boys who gather eggs as they would pretty shells and the man who strives to possess the largest collection in town, we have no use. Neither can we consider such articles as the one asking "Hast thou named all the birds without a gun"? We don't do it that way on the Pacific Coast. The A. O. U. says it doesn't go!

In the possible extermination of birds we find the first point which the extreme bird protectionists have made. If we are seriously reducing the bird ranks it is time to call a halt and every sincere ornithologist will obey the command. Let us see what evidence we have

in the case. I believe that most of the writers speak without knowledge, for they certainly fail to present facts. The Rev. Mr. Henninger, however, gives us an array of figures from Davie's *Nests & Eggs of North American Birds* which is very alarming,—to the Rev. Mr. Henninger. (*Osprey*, Feb. '99.) Does he seriously fear that the taking of 500 Coot's eggs or 917 Kentucky Warbler's eggs will endanger these species? Blessed news; let us gather at once 5,000 eggs of *Passer domesticus* and wipe him from the earth! I do not wish to write anything in defense of Mr. Davie's book; it needs none. Long may it live. What I do wish is to set at rest the mind of the Rev. Mr. Henninger concerning the destruction of certain bird species at the hand of the egg collector. He objects to one man having 94 eggs of *Ptychoramphus aleuticus*. I have never taken many eggs of this bird myself, but could show anyone where 94 eggs might be taken every day for two weeks and leave several thousand for seed. If I am not mistaken, I helped collect "50 eggs of the Guadalupe Petrel in two days," but I can assure the fearful that there were plenty of Petrels' eggs still in the ground.

If I tell him of taking 100 Shearwaters' eggs in one day, shall I be condemned? Yet there are thousands of Shearwaters' eggs left in that place. The fact that a few men only possess such large series as 112 eggs of the Chuck-will's-widow seems to make a lot of difference, to the widows. If everyone collected in big series the poor Chucks might have to try the Flicker's dodge of laying 71 eggs in 73 days. The Rev. Henninger shows how well he has learned his profession when he mentions an act and leaves his readers to imagine the attendant circumstances. 'Tis a common trick of the public speaker but goes not so well in writing. To illustrate what I mean let us take the case of the Guadalupe Petrel. This bird breeds, so far as known, only on Guadalupe, an uninhabited island 200 miles from civilization. A trip there is expensive and landing dangerous. At the time of our visit the eggs and nesting of the petrel were almost unknown. The island is over-run with wild domestic cats which make a business of catching petrels as the setting birds enter and leave their burrows. It is in all probability only a question of a short time before the cats will have exterminated the birds. In view of these facts I ask if we were not justified in taking fifty eggs in two days. Circumstances may alter some of the other cases.

As to the wholesale collecting of birds themselves, I cannot believe it is so dangerous as depicted. I have made a little calculation which really surprised myself. Here it is. Let us suppose that each collector in California kills 5,000 birds each year. There are not over 100 bird and egg collectors in our State so we would have 500,000 birds destroyed each year. Now the area of California is a little over 150,000 square miles, thus giving an annual destruction of three birds to each square mile! This, even, is a most exaggerated estimate, for I very much doubt if there are twenty-five collectors in California, each of whom destroys annually 1,000 birds or eggs. I have collected in the state for about eight years and have under 3,000 skins. The largest private collection I know of here contains little over 10,000 specimens.

I believe that the taking of birds for commercial purposes, the destruction of birds and eggs by boys and the extensive collecting of birds during nesting time, as described in our last BULLETIN are abuses of liberty which should be condemned and prevented. If we are to study biology in all its branches we must have liberty. As to what is abuse of that liberty each must be his own judge, as he is his own judge of what constitutes the abuse of friendship or of any other civil or personal relation.

RICHARD C. MCGREGOR.
Palo Alto, Cal.

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AMONG the graduates of the class of '99 at Stanford University, the Cooper Club was well represented. Mr. W. W. Price took his degree of Master of Arts in zoology, while Messrs. R. C. McGregor and Ralph Arnold received the degree of B. A. in ethics and geology respectively. Mr. Arnold was honored with the presidency of the class of '99, and has been the leader of the Stanford Mandolin Club for several years past.

WILFRED H. OSGOOD of the Biological Survey and a member of the Cooper Club, left Seattle on May 24 with Dr. L. B. Bishop of New Haven, Conn., and Mr. A. G. Maddren of Stanford University, for Dawson City on a scientific expedition. The party will be gone five months, travelling from Skagway to Dawson City, thence by revenue steamer down the Yukon to St. Michaels. Mammals and birds will be collected, Mr. Osgood acting as chief naturalist of the expedition.

Winter Observations on Anna's Hummingbird.

BY W. O. EMERSON, HAYWARDS, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Sep. 3, 1898.]

NO OTHER group of birds possesses such mysterious interest as the hummingbirds whose brilliancy of plumage entitles them to be called "gems of the air." Living among highly colored flowers from the tropics to the icy north, never in the dust of the earth, the hues of the rainbow are theirs. During the open winter of 1897-98 I had an opportunity to see the hardy Anna's Hummingbirds every day around my house, among the flowering shrubs and blossoming eucalyptus trees. From November 12 they became so common that at any time one or two could be seen resting on the ends of cherry branches or gathering gnats or sweets from the eucalyptus blossoms. One was shot on the 21st which surprised me on picking it up to see that it had not yet attained the perfect helmet. Around the base of the bill were still a number of pin-feathers. Another, collected on the 25th, had only one-half of the crown patch developed, the other feathers at the base of the bill being still in silvery cases. From this I judge that many males do not get their adult feathers till late in winter.

On the 26th and 27th a dozen or more could be seen chasing one another through the eucalypti, scolding and twittering like young swallows. This was more to be noticed among the males, the females many times sitting side by side on the same branch. December growing cooler, only one now and then would be seen in the early forenoon or near dusk, although males were shot on the 2nd, 11th, 19th, 21st and 25th, no females being seen. One

on the 21st had a few pin feathers in the throat patch; one on the 25th had eight or nine perfect feathers in the helmet, the rest of a dull grayish color and the throat patch mottled and incomplete. On cold mornings the hummingbirds would flutter around, hardly able to move their wings, flying in a dull, stupid way as though scarcely awake, but as the air grew warmer they became more lively. Jan. 15 a male was taken which showed a perfect rusty grayish helmet from bill to base of skull, where there are ten or twelve adult feathers lined up around the outer edge. The throat was more of the pattern of the females, being of a grayish lustre, with a reflection of the Ruby-throat. One shot on the 10th had a few feathers at the base of the bill. A female, the first one seen, was shot on the 10th. Another was noticed early in the morning, gathering spider webs along the cypress hedge.

I find no data in any work regarding this winter transition of the male's helmet and throat patch. February 24, 1898, full-fledged young were flying about the garden, showing very early nesting. The data for the first nest found in the past ten years shows a range of four months, as follows: Feb. 22, 1882; Feb. 25, 1883; April 20, 1884; Feb. 21, 1885; Jan. 19, 1886; Jan. 14, 1887; March 20, 1888; March 23, 1889; March 20, 1890 and March 12, 1897. As the cherry trees began to bloom by March 16, 1898, a wave of migration occurred at Haywards. Great numbers of Allen's Hummingbirds appeared and Anna's became more abundant.

Echoes from the Field.

Ravens Nesting on a Railroad Bridge. On April 10th last a sheep-herder brought me a set of three eggs of the American Raven, and on questioning him concerning the nest I learned they were taken from a nest beneath a railroad bridge. This seemed odd, to say the least, as I know of several of their nests on inaccessible cliffs, the birds seeming to intuitively know that man is their enemy. Recently I visited the locality from which the eggs came to verify the truthfulness of the collector's description and to secure the remaining eggs of the set if they had been laid. We travelled some twelve miles of sage desert and came in sight

of the bridge under which the alleged nest was situated. It was apparent that the ravens had selected the bridge for the reason that it was the best place in the district. There were no cliffs within perhaps twenty miles, and as feed was plentiful the ravens had concluded to use the bridge for a nesting site. I found the nest in a confused heap on the ground and two broken eggs near by, the nest having probably been pushed from the trestle by the section men. It had been placed on an upper beam of the bridge and the eggs could not have been more than two feet from the rails. The distance from the ground was about thirty feet. The nest was composed outwardly of coarse sticks, some of them two feet in length. Inside was a snug lining of about five pounds of wool, mixed with soft cedar bark. Many sheep graze on the deserts in winter and the wool was easily obtained. The railroad is used by four trains daily between Lehi Junction and the Tintic mining region and is a branch of the Union Pacific Railway.

H. C. JOHNSON, American Fork, Utah.

Decoy Nests of the Western Winter Wren. I have used the expression "decoy" for the nests that are built by many of our birds, apart from the one used for raising the young. This habit is, perhaps, more characteristic with the wrens than with any other family of our birds, although it is well known as a trait of the Marsh Wrens. The Western Winter Wren, (*Troglodytes hiemalis pacificus*), can easily claim second place in this peculiarity, if, indeed, it does not fully equal the Marsh Wrens. The number of "decoys" built by one pair of these birds varies from one to at least four, and on one occasion I found eight of these false nests that were strung along the edge of a stream bordered by dense growth of all sizes. These were all in a space about 150 yards long and almost in a straight line, but owing to extreme difficulty in locating them, it is probable that there were more. One thing is painfully certain, that I could not find the right nest, although it must have been in the immediate vicinity. I do not, however, feel justified in claiming that all of these belonged to one pair of birds, as four is the largest number I have ever found in any previous case, but only one bird put in an appearance during my entire search. The "decoys" are never so well constructed as the regular nests, but a few weeks ago I was surprised to find that a pair had made over and lined one of last season and laid one egg. Unfortunately a very wet period of weather soaked the nest so thoroughly that the birds deserted. This seems to supply one very good reason for the apparently superfluous "decoys."

J. H. BOWLES, Tacoma, Wash., May 29, '99.

Elevated Nest of the Lutescent Warbler. On May 31, 1897, I found a nest of the Lutescent Warbler placed three feet from the ground in a bunch of vines. It was loosely constructed of a quantity of dry leaves, grass and skeletons of leaves, lined with hair and fine grass. On May 3, 1899, while walking along a creek about one quarter of a mile from where I had found the nest in 1897, I flushed a bird from a nest in an oak tree, and was surprised to see it was a Lutescent Warbler. The nest was six feet from the ground and three feet from the trunk of the tree. A horizontal limb branched out from the tree and a small branch stuck up from it for about eight inches, and over this was a great quantity of Spanish moss, (*Ramalina retiformis*), which fell over the horizontal limb. The nest is quite bulky, composed of leaves, grass and bark strips, lined with hair and fine grass, and was partially supported by both limbs and the moss, which is all about it and which forms quite a cover for the eggs. At this date the eggs were about to hatch and could not be saved. HENRY W. CARRIGER, Sonoma, Cal.

The Yellow Rail and Saw-Whet Owl in Sonoma Co., Cal. On December 20, 1898, while walking through the salt grass, I flushed a Yellow Rail which flew about twenty feet and alighted. I caught it and carried it about all day and put it in a box that night. The following morning it was quite lively, but I reluctantly killed it. It proved to be a female in fine condition and measures; length, $6\frac{1}{2}$; extent, 13; wing, $3\frac{1}{4}$; tail 1.20 inches.

On the night of December 16, 1898, my brother brought me an owl which he had caught in a tree near the house. The night was cold and foggy and the bird was apparently in an exhausted condition. To secure the owl, my brother made several jumps at the limb on which it sat before pulling it to the ground, where it sat stupefied and was placed in a box. The next morning it was dead, and upon skinning it I found the stomach empty and the bird in an emaciated condition. Sex, female; length, 19½ inches; extent 8 or 8½ inches. The bird proved to be a Saw-Whet Owl, a record for Sonoma Co. HENRY W. CARRIGER, Sonoma, Cal.

Violet-green Swallow in Marin Co: Two Unrecorded Captures. I was pleased to see my note on the Violet-green Swallow, which appeared in BULLETIN No. 2, considered worthy of Mr. Carriger's remark in the last issue. The note was certainly rather vague and gave no reason for my identification, which I will now give: *First*: In all the birds which came near enough to be seen distinctly, the *large white patches* on either side of the rump were most conspicuous. *Secondly*: In one instance a bird wheeled so near me (not more than 20 feet away) that a flash of *violet* on the back was distinctly seen as the bird flew by. As these two points, I believe, are characteristic of the Violet-green and not of the Tree Swallow, I think the birds seen may safely be called the former. As no specimens were secured there, of course, is a doubt, but I took the birds to be Violet-green Swallows.

Junco hyemalis.—On January 24, 1897, at Berkely, Cal., I collected an adult ♂ (typical) of this species, as it was feeding by the roadside in company with a large flock of *J. h. oregonus*.

Spinus psaltria arizonæ.—Took a pair of birds at Santa Clara, Cal., the ♂ of which proved to be a typical specimen of this species. On comparison with a number of skins from Arizona and other localities, this bird was found to be a little darker than any and much darker than most of those from the type locality.

T. E. SLEVIN, San Francisco, Cal.

Three Records for San Mateo Co., Cal. I wish to report the capture here in Redwood City, on Sept. 17, '97, of a female Bobolink, (*Dolichonyx oryzivorus*). The bird was extremely shy and was found among cabbages in a vegetable garden, where it was associated with Bryant's and the Western Savanna Sparrow. This is, as far as I am aware, the first record for the State.

I also have two specimens ♂ ♀ of Leache's Petrel, taken on May 7, '99, near Pescadero, Cal. These are possibly the first ever recorded from the mainland coast of California. They are probably the same as those reported from the Farallon Islands.

In my collection at this time is a skin of the Mexican Ground Dove, belonging to Mr. Chas. Nichols of Pescadero, and taken near that place on Feb. 27, '98. The bird was shot by a boy and given to Mr. Nichols, who made a specimen of it. There were eleven of them in a flock, I understand. They arrived in the boy's yard during a severe storm and sought shelter in a wood-pile, where they remained for three days, when the weather cleared and they departed.

CHASE LITTLEJOHN, Redwood City, Cal.

Nesting of Belding's Sparrow. (*Ammodramus beldingi*.) April 21, 1899 while collecting near Santa Monica I was fortunate enough to discover three nests of Belding's Sparrow, two containing eggs and one containing young. The nests were placed in the salt grass about six inches above the ground and were composed principally of large and small straws of the salt grass with a few straws of Bermuda grass interwoven. The first nest, which contained four eggs, was well lined with horse-hair while the second nest (½) was lined mostly with fine straws, some hairs and a few gull feathers. The eggs are of a light blue ground color, with irregular markings of lilac and reddish brown. The set of four is marked almost entirely at the larger end, while the other set is well washed over the entire surface. Both sets were incubated about three-fifths.

HOWARD ROBERTSON, Los Angeles, Cal.

BULLETIN
of the
Cooper Ornithological Club
OF CALIFORNIA.

Published bi-monthly at Santa Clara, Cal., in the interests
and as Official Organ of the Club.

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Business Managers.

Subscription, (in advance)	One Dollar a Year.
Single Copies,	25 Cents.
Six Copies or more of one issue,	12½ Cents Each.
Foreign Subscription,	\$1.25.
Free to Honorary Members and to Active Members not in arrears for dues.	

Advertising rates will be sent on application.

Advertisements and subscriptions should be sent to the
Business Managers.

Exchanges should be sent to the Editor-in-Chief.

Notes of interest and striking ornithological photo-
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Entered at the Santa Clara Post-office as second class
matter.

This issue of the Bulletin was mailed July 14.

EDITORIAL NOTES.

The agitation of the question of bird protection in the last BULLETIN has been productive of numerous words of good cheer from all sides, which unanimity of opinion is gratifying in the extreme. We have the assurance from one of the gentlemen referred to as having indulged in unlimited collecting that no more such work will be done by him and that he believes he collected beyond the limit of scientific requirements, and his frank statement will claim the admiration of all who respect an example of sterling manhood. The sentiment has been unanimous that promiscuous collecting during the breeding season is wholly a question of principle and can have no defense in-so-far as connecting it with the extermination of the birds is concerned. The letters received have been largely from practical ornithologists, and if they may be taken as indicating the feeling of ornithologists generally, the BULLETIN has sounded the key-note of bird protection.

The dread of the ultra-sentimentalists seems to inspire all active workers, and there appears a desire to eliminate them from the ranks of the true protectionists. As there was no dissenting voice raised, the BULLETIN has omitted publishing the numerous letters received as their sentiment was but a repetition

of the stand taken. A communication from Mr. Richard C. McGregor will be found elsewhere dealing with the matter of collecting, under the caption "Circumstances Alter Cases," and several views are presented which may be considered to advantage, although they may not be intended to apply to the position we have taken.

A pamphlet has been issued by the Pennsylvania Audubon Society through the efforts of Mr. Witmer Stone, Chairman of the A. O. U. Bird Protection Committee, addressed to young bird students, in which they are taught that a personal collection of common local birds is unnecessary to scientific advancement and an effort is made to counteract "the effect of the advice of egg dealers and traders, who seem bent upon developing our budding students into 'egg hogs' instead of ornithologists." The pamphlet is one of the most practical ones in point of reason and good advice which has been issued and Mr. Stone has shorn it of any unnecessary sentiment.

Through an inadvertency in our last issue on page 52, the "Notes from Alameda, Cal.," were not credited. They were contributed by Mr. Donald A. Cohen of Alameda, Cal.

In the Proceedings of the Biological Society of Washington (Vol. XIII, pp. 41-42, May 29, 1899) Mr. Wilfred H. Osgood of the Cooper Club submits a paper on "*Chamæa fasciata* and its Subspecies." Mr. Osgood finds that the Wren-Tit (*Chamæa fasciata*) and the Pallid Wren-Tit (*C. f. henshawi*) are synonymous and it becomes necessary to provide a new name for the northern coast form "heretofore assumed to be typical *fasciata*." Accordingly, the Pallid Wren-Tit (*Chamæa fasciata*) is assigned to the "southern coast and interior of California, including coast valleys and foothills from San Francisco Bay south to northern Lower California; interior valleys and slopes north to head of the Sacramento Valley; upper Sonoran zone." For the northern coast form is proposed the name of *Chamæa phæa*, or Coast Wren-Tit, with the following habitat: "Coast of Oregon and California from Astoria to Nicasio. Transition zone."

MR. W. B. JUDSON of Los Angeles, now located at Dawson City, N. W. T., writes:—"I have done practically no collecting since I left Los Angeles in February 1898. I saw about twenty nests of the Bald Eagle with the birds about them at Wrangel and at the mouth of the Stickeen. I found several nests of the Three-toed Woodpecker at the lakes after leaving Glenora on the last of May, but all had young nearly ready to fly. I have seen a couple of Hawk Owls and a few small birds in the fall, but there are no birds here at present, (March) excepting ravens, chickadees and jays. Also a few ptarmigan and grouse. I have put up one skin since I came in." Mr. Judson speaks doubtfully of mining interests about Dawson City.

The Gopher Snake as a Despoiler of Quails' Nests.

The question of what part the common spotted gopher-snake plays in the economy of nature has arisen frequently in my mind, and until recently I had accepted the prevalent opinion that he was "harmless." The following four observations, however, have convinced me that he is a bad citizen. The Valley Partridge is a very common bird on the Stanford ranch, due to the protection from hunters the year round. I have often heard the old birds during breeding time giving the alarm notes for several minutes. They were generally perched in the trees and I ascribed their fear to my approach.

May 29—I came upon a pair of partridges in a low tree giving notes of great alarm. I thought at first that a flock of newly hatched chicks might be near and commenced to look for them. Pulling aside the branches of a low shrub, there was disclosed a nest of eight eggs and a large gopher snake with four knots in his body, which, when pressed, flattened out. I watched him a moment and he swallowed an egg. I killed him and ripped him open. Inside were four eggs unbroken and material for at least two more.

May 31.—Another pair of excited birds attracted my attention and after an hour's search I found another nest of twelve eggs and another snake with one lump in his body. I killed him instantly.

June 5.—Still another excited partridge household and the same cause discovered after search. This time I tried dragging the robber away, to ascertain how anxious he was to continue his meal. He would return after being taken away ten paces. I killed him and cut him open. He had swallowed at least one egg which was well along in incubation.

June 22.—This time a flutter and a struggle in the shrubbery attracted my attention. It was the female trying to drive the snake away. Being in a hurry I carried the snake about fifty yards down the path and put him down. He started off in the direction of the nest and when I returned an hour later he was gulping down an egg. There was a lump in him well down toward the end of the abdomen, and I regretted after having killed him that I did not bring him home and see if he was able to digest an egg with the shell on.

THEODORE J. HOOVIR.

Stanford University, June 22, '99

Taking of a Condor's Egg.

On April 17, 1899, an egg of the California Condor was taken in San Roque canon, near Santa Barbara, by F. Ruiz, a surveyor in the employ of the Pacific Improvement Co., who, with a party, was doing some work in the canon. His attention was first attracted by seeing a pair of the birds flying about the canon, and it occurred to him that there might possibly be a nest in the vicinity. Acting on this supposition he and a companion named Forbush proceeded up the canon, and finally noticed a cave on a high cliff some 150 feet above the creek, which they managed to reach after considerable difficulty. From the top Ruiz was enabled to look over the edge a short distance into the cave, where he saw the egg on the floor of the cave, with one of the birds crouched on the ground beside the nest, which consisted of a few sticks of brush and some sand which had evidently blown into the cave from the edge of the cliff.

Mr. Ruiz states that the bird remained in this position until he had thrown several rocks at it, one of which either hit the bird or came close enough to make it take flight when it proceeded down the canon. At considerable risk, Ruiz then clambered down into the cave without the aid of a rope or other assistance, save what the brush afforded, his companion remaining on the cliff to give him warning in event of any hostility on the part of the disturbed condor. While securing the egg he was told that the bird was returning and as he was retreating up the cliff with the prize he noticed both birds on the wing, and to use his own words, "fighting and quarreling in the air." They did not attempt any attack, but followed the men about for a considerable time before taking leave. The egg was perfectly fresh and measured 4 3-10 x 2 6-10 inches and was a trifle deeper in color than those I have seen illustrated. A young condor (a "yearling," I suppose) was shot in the same canon about two months ago.

A. P. REDINGTON.

Santa Barbara, Cal., May 2, '99.

JOHN M. WELCH, Henry W. Carriger and C. Barlow spent a week in the Sierras of El Dorado Co., Cal., early in June and had a most enjoyable outing. Numerous photographs were taken and Mr. Carriger carried away the only set of Hermit Warbler reported for the season.

Official Minutes of Southern Division.

MAY.

The Division met May 27 at the residence of Mr. H. J. Leland in Los Angeles. The following were present: Messrs. McCormick, Daggett, Swarth, Leland, Chambers, Rising and Robertson. Messrs. McAuliffe and Lapham were present as visitors. Mr. and Mrs. A. C. Moody of Pasadena were elected to membership. The final design of a club crest, as drawn by Mr. Emerson was accepted. On motion of Mr. McCormick it was agreed to amend the section of the Division's by-laws, changing the meeting night from the last Saturday to the last Thursday in the month. The treasurer reported that there were a number of delinquent members on his list and that he had sent notices to each at different times but had received no replies. He was instructed to send one more notice to each delinquent notifying him of his arrears and stating that if a settlement was not made by the next meeting his name would be dropped from the membership roll. A communication from Mr. McGregor was read and a copy ordered filed. A letter from Earle D. Parker, formerly of Pasadena, containing his resignation was read and the resignation accepted. The following paper was read: "Ornithology in the Sierra Nevadas at 3700 ft. altitude." by C. Barlow. Adjourned.

JUNE.

The June meeting was held at the residence of Mr. A. C. Moody, Pasadena, on June 29. Mr. Daggett presided. The following were present: Mr. and Mrs. Moody, Messrs. Daggett, Reiser, Swarth and Robertson. The secretary was instructed to make a copy of all county ordinances relating to the protection of game and song birds that have been recently passed in this county and make a report at the next meeting.

HOWARD ROBERTSON,
Div. Secretary.

Official Minutes of Northern Division.

The Division met at the residence of H. R. Taylor in Alameda, July 1, Mr. Emerson in the chair. Messrs. Milton S. Ray, Chester C. Lamb, E. V. Warren and N. M. Flower were elected to active membership. The names of W. H. Kobbe of Ft. Mason, San Francisco, and H. H. Sheldon of Alameda were proposed for membership. Bills to the amount of \$3.86 were allowed. The following papers were read: "Winter Birds of the Lower Colorado Valley," by W. W. Price; "The Genus *Junco* in California" by H. B. Kaeding; "Another Chapter on the Nesting of the Hermit Warbler" by C. Barlow.

C. BARLOW,
Div. Secretary.

As we go to press we learn of the retirement from the *Osprey* staff of Dr. Elliott Coues, Mr. Walter A. Johnson and Mr. L. A. Fuertes, leaving Dr. Theo. Gill to direct the destinies of the magazine. We are unable to learn whether or not Dr. Gill will continue to publish the *Osprey*.

PALO ALTO, CAL., JUNE 18, 1899,
Fellow Members of the Cooper Club;

Under date of Oct. 1, 1896, circular No. 1 was sent to you setting forth our plan for the preparation of a list of California birds. County lists were to be sent to me not later than January of the next year that I as secretary of the State List Committee might proceed at once to draw up our list.

In a very short time I began to receive contributions and things looked well, but after the tenth list not another could I secure. I have let the matter stand until this spring, when I got together what material was on hand and now I have that in good shape. I have decided to get up the water birds first, as that is what we most need and I believe the Club is able to have it printed. I shall use such of the material in Mr. Belding's manuscript, "Water Birds of the Pacific District," as relates to California and any published notes that are available. I hope those who have any records on the water birds, especially extended local lists, will send them to me at once.

I am now in a position to push the work rapidly and trust you will all do your part that we may have a good catalogue of water birds.

Notes are especially desired on abundance, nesting dates and time of arrival and departure. Give specific data as much as possible and avoid generalized statements.

Faithfully, RICHARD C. MCGREGOR.

Publications Received.

Bird Lore, I, No. 3, June, 1899.

Maine Sportsman, VI, Nos. 69 and 70, May and June, 1899.

Museum V, Nos. 7 and 8, May and June, 1899.

Osprey III, No. 9, May, 1899.

Oologist XVI, No. 5, May, 1899.

Ornithologisches Jahrbuch IX, No. 1.

Plant World II, Nos. 8 and 9, May and June, 1899.

Proc. Biological Society of Washington, Vol. XIII, (in part).

Sports Afield, No. 6, June, 1899.

Wilson Bulletin, No. 26, May, 1899.

MARRIED.—In San Francisco, June 6, 1899, Miss Mildred Crew Brooke of Baltimore, to Theodore J. Hoover of Stanford University, Rev. E. B. Church, assistant rector of Trinity Church, officiating.

Mr. Hoover is a prominent member of the Cooper Club, and his numerous friends and club mates will join in tendering their hearty congratulations and well wishes.

JOHN M. WILLARD of Oakland is spending two months on a collecting trip at the summit of the mountains of Lassen County in the interests of several Club members about the Bay.

MR. LYMAN BELDING of Stockton has been rustinating on the McCloud River near Dunsmuir, Shasta Co., for several weeks, and we hope has materially improved in health.

Exchange Notices.

LOST.—Some of my correspondence I have not recovered, as my mail was forwarded to Central America. Please write again if I have not answered your letter.

R. C. McGREGOR, Palo Alto, Cal.

FINELY MARKED SETS (3 and 4 eggs) Fer. Rough-leg, personally collected this season, at 60 cents per egg delivered.

EUGENE S. ROLFE, Minnewaukan, N. Dak.

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A. M. SHIELDS,
7 Crocker Bldg., San Francisco, Cal.

Bright! Breezy! Birds!

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A Monthly Magazine of

Popular :: Ornithology.

Profusely Illustrated.

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WALTER ADAMS JOHNSON, Associate Editor
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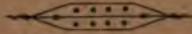
During the past fifteen years, (THE OÖLOGIST's age) many superior "Bird" publications and scores of inferior ones have dropped by the way. THE OÖLOGIST, however, is still issued each month and a sample copy of a recent issue can always be obtained by addressing a postal to

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Albion, N. Y.

The American Ornithologists' Union
CHECK-LIST OF NORTH AMERICAN BIRDS,

Second Edition, 1895, Thoroughly Revised.



The preface to this work defines its scope and object and includes selections from the A. O. U. Code of Nomenclature, of special importance in the present connection. The table of contents consists of a systematic list of orders, sub-orders and families of North American birds. The check-list proper gives the scientific and common name, number in previous list, and geographical distribution of the 1,068 species and sub-species, constituting the North American Avifauna. This is followed by a list of birds of doubtful status, and a list of the fossil birds of North America.

This new edition has been carefully revised; the recent changes in nomenclature and species and sub-species described since the publication of the first edition in 1886 are included, while the portion relating to geographical distribution has been much amplified.

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THE AUK

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J. A. Allen, Editor. F. M. Chapman Assoc. Editor.

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Publisher of 'The Auk,' and agent of
The American Ornithologists' Union
for the Sale of its Publications.

33 PINE STREET,

NEW YORK CITY.

Published in the Interests of Californian Ornithology.

BULLETIN
- of the -
COOPER ORNITHOLOGICAL CLUB.
OF CALIFORNIA.

Vol. 1.

Santa Clara, Cal., September-October, 1899.

No. 5.



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PROMINENT CALIFORNIAN ORNITHOLOGISTS.

II. ROLLO H. BECK.

FEW more active ornithologists are found in California's present corps of field workers than the subject of our sketch—R. H. Beck. Having lived for years at Berryessa, Cal., which is almost a suburb of San Jose, nestling at the foot of the western slope of the Mt. Hamilton range, he has been within easy reach of a most interesting country and where much of his work has been done.

Mr. Beck first began practical collecting in 1889 and in a few years possessed an excellent oological collection of native species. Among his earlier good finds were several pairs of Dotted Canon Wrens which were annual contributors of interesting sets of eggs at which time few sets of the species were in collections. His work among the birds has at all times been active and as a result he possesses a valuable collection of study material in skins. Mr. Beck has followed taxidermy ardently for years and has put forth some excellent groups, while others are in process at the present time.

On the Alviso marsh of San Francisco Bay in 1891, Mr. Beck secured two specimens of a form of the Sharp-tailed Sparrow which were the first taken on the coast and unlike the eastern species. The form was described by Mr. Robt. Ridgway and named in Mr. Beck's honor, *Ammodramus caudacutus becki*. The marsh mentioned has yielded a

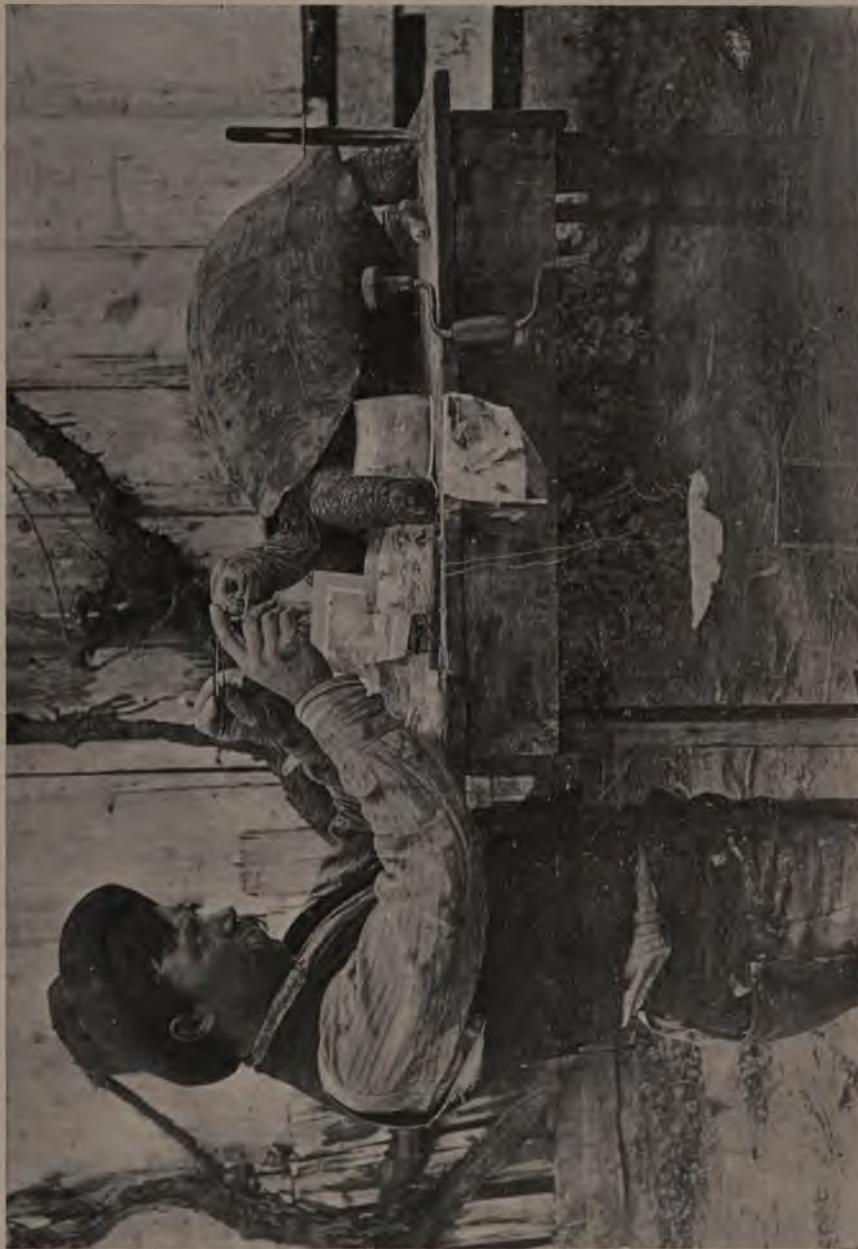
number of Black and Yellow Rail as a result of Mr. Beck's prowess.

For some years previous to Major Bendire's death Mr. Beck sent him many valuable notes on the nesting of little-known species which his extended field work had permitted him to secure. In Monterey Co., in 1891, he collected a nest and four eggs of the Rufous-crowned Sparrow which were secured by Major Bendire for the National Museum. Near the same locality he met with the Black Swift (*Cypseloides niger*) and his notes were subsequently embodied in Major Bendire's work.

In 1896 Mr. Beck in company with Mr. W. H. Osgood made an extended trip through the Sierra Nevada Mountains of Central California, spending most of the summer in the field and his good fortune again bore fruit. Two sets of eggs of special interest to science were taken; on June 10, 1896, he located a nest of the Hermit Warbler at 5000 feet altitude, placed 45 feet up in a pine, and by dint of carrying a heavy ladder up a steep hillside he secured the first positively authentic nest and eggs of this warbler. (Proc. Cooper Club, *Nidologist* IV, p. 79). On June 18, 1896, Mr. Beck collected a nest and four eggs of the Western Evening Grosbeak near the same locality having found it building a week before. This was the first set of this species known to science and together with the set of

Photo by R. H. Beck.

ROLLO H. BECK MOUNTING A GALAPAGOS TORTOISE.



Hermit Warbler found its way to the National Museum. (Proc. Cooper Orn. Club, *Nidologist* IV, p. 3).

In June, 1897, Mr. Beck was called from his camp in the Sierras to San Francisco where he became a member of the Frank B. Webster expedition under command of C. M. Harris and spent seven months collecting in the Galapagos Archipelago. The expedition brought back much new and valuable material which went into the Rothschild collection in London. Mr. Beck was honored in having a species of *Certhidea* named after him. It was from this expedition that the Giant Tortoise shown in the plate was secured.

Mr. Beck has made two collecting trips to Santa Cruz Island and others of the channel group where he secured considerable material of special interest, among them being specimens of the Island Shrike from which the type was described by Dr. Edgar A. Mearns in the *Auk* for July, 1898, as *Lanius ludovicianus anthonyi*. He also took the first recorded nests and eggs of the Santa Cruz Jay on Santa Cruz Island, from all of which work one may judge of the extreme energy of Mr. Beck as a

field worker. His skill as a sportsman is not less pronounced than his careful work in ornithology, and he is withal a true naturalist, a lover of the rod, gun and camera, possessed of a keen perception of art in nature and a modesty for the value of his scientific work. Mr. Beck's collecting grounds cover a rugged country but yield several sets of Golden Eagle each year, due more to tireless energy than good fortune. As a member of the Cooper Club since 1894 Mr. Beck has held the offices of president and vice president and contributed to the advancement of the Club.

The plate herewith given represents Mr. Beck mounting his Giant Tortoise from the Galapagos Islands. The tortoise lived for almost a year after its arrival at Berryessa and seemed to thrive upon a diet of cactus and would in all probability have lived many years to enjoy the salubrious climate of the Santa Clara Valley had it not on an evil evening forgotten to draw in its head! A frost came, the tortoise was nipped in the bud, and we present the very natural picture of Mr. Beck putting the finishing touches to a really excellent pose of the tortoise.

C. B.

The Genus *Junco* in California.

BY HENRY B. KAEDING, TAYLORSVILLE, CAL.

[Read before the Northern Division of the Cooper Orn. Club, July 1 1899.]

THE State of California may be roughly divided into three sections, each having its characteristic climate and subsequent peculiarities in flora and fauna, and to the ornithologist it is particularly interesting to note the influence that these climatic conditions bring to bear upon the avifauna of the state.

The first of these sections is the Coast Range Mts. from the vicinity of Monterey, northward. Here we have a cool, moist region, of no great altitude, subject to sea breezes and fogs. The birds of this section show distinct traces of northern characteristics, as for instance, *Cyanocitta stelleri*, *Bubo virginianus saturatus*, *Oreortyx pictus*, etc. While of course at the southern end of this area some of the forms merge into their southern races and hence are intermediate in form, as one moves north

along the coast, the races become more distinct until the pronounced forms of the northern states are reached. It is in this strip of coast and nowhere else that typical *Chamaea fasciata* is found, and it is only in the northern part of this section that anything approaching *Junco hyemalis oregonus* may be found breeding.

The second section may be called the "low-lands" and comprises the broad valleys of the Sacramento and San Joaquin rivers, with their adjacent rolling and foot-hill country. Here will be found the birds loving a hot, comparatively dry atmosphere—a profusion of blackbirds, meadowlarks, Black-headed Grosbeaks, etc. These birds reach their greatest abundance in this region, although they spread more or less plentifully all over the state.

Lastly and the most distinct of any,

we have the great "Snowy Mountains," —Los Sierra Nevada, extending almost the entire length of the state along its eastern border. These form a continuous chain, rearing their heads to a height of from 9,000 to 11,000 feet above the sea level with their bases on the west resting in the broad California valleys, and with passes over their summit ranging from 5,000 to 10,000 feet in altitude. The pass of the Southern Pacific Railroad at Truckee is low in comparison to some others, Sonora Pass in Tuolumne county being 9,500 ft. high. In this great section of California we encounter an avifauna different from the rest of the state. Here is the home of *Oreortyx pictus plumiferus*, of *Contopus borealis*, of *Passerella iliaca megarhyncha*, of *Zonotrichia leucophrys*, of *Junco hyemalis thurberi* and of a score of others which breed on the slopes of these mountains and migrate westward into the valleys in winter. This western migration is, with many species, the only migration, while with others, such as the various *Empidonaces*, *Tachycineta* and others a southerly migration takes place after the valleys are reached in the fall.

Southern California, south of Monterey Bay and of the lower end of the Sierras, might possibly be set aside as a fourth avian section; it has characteristics which none of the others have, being close to the arid deserts of Arizona, Texas and New Mexico, but it seems to be less distinct than any of the three I have mentioned, and apparently an intermediate ground for the birds of all, thus showing a mixed bird life. No birds are more interesting to work with and to watch than the Junco; the trim little plumage, sprightly and confiding air, the neat nests and dainty eggs all have a charm. California has, as far as I am able to ascertain, five species of this genus recorded within its limits,—three resident and breeding and two casual stragglers.

The most abundant and most widely distributed form is *Junco hyemalis thurberi* ANTHONY (1). This form differs from *oregonus* in having (2) "the sides paler and less extensively pinkish; dorsal patch paler and more sharply defined." The description of the type is

as follows: (3). "Adult male. (Type No. 3072; Coll., A. W. Anthony, Wilson's Peak, Cal., May 24, 1890; E. C. Thurber, collector.) Head and neck all round slaty-black, sharply defined against the white breast and pale chestnut dorsal patch; lower parts and under tail coverts pure white; sides pale pinkish, grayish on flanks; wings and tail blackish, former with slightly hoary edgings of the primaries; three lateral retrices white, the third with inner web broadly blackish; bill and feet flesh color."

This is the common junco of California and ranges apparently throughout the Sierras and their tributary spurs from San Diego county on the south to Mt. Lassen on the north; it undoubtedly reaches farther north still but I have no record at the present writing of it so doing. During the summer juncos may be found up as high as 10,000 feet in the Sierras, but not as a rule lower than 3,000 feet, breeding. The breeding dates vary with the altitude and eggs may be found at 4,000 feet in May and as late as July 15 fresh eggs have been taken at 9,000 feet altitude. In the southern Sierras the latest recorded set was taken on June 12 on Mt. Wilson (4). Three or four eggs are the usual number in a set and rarely five. The nest is practically the same as that of other species of the genus, placed on the ground, though there are cases on record of nests being placed in trees and in deserted woodpeckers' holes. In the fall the birds congregate in flocks and move westward, through the foothill regions into the valleys. Some winter in the mountain valleys at varying altitudes, while large numbers work down into the valley region of Central California. Thurber's Junco is a common resident in the Laguna Mts. of Lower California.

Junco hyemalis oregonus is found in the typical form in Oregon during the summer and may possibly extend southward into the California Coast Range, but the most of the juncos breeding in the northern part of California and in the Coast Range north of San Francisco Bay are intermediate between *oregonus* and *thurberi*. These birds move southward in winter and may be found in

large numbers in the rolling country about San Francisco Bay and to the northward.

The type locality of *Junco hyemalis pinosus* is Monterey, California, and here may be noted a peculiarity of the coast region from San Francisco southward through Santa Cruz and Monterey. This region has some birds of practically the same character as are found in the Sierras,—*Junco*, *Oreortyx*, *Turdus aonalaschkae*, and while in the Sierra Nevadas these birds all seek high altitudes to breed, on the coast they are found breeding from sea level to mountain-top. The juncos of this region were separated by Mr. J. M. Loonis and carry very striking characters, the most conspicuous being the bright rufous or reddish dorsal patch which is much more pronounced than in either *oregonus* or *thurberi*. These juncos are very common in the vicinity of Monterey during summer and during the breeding season are the only ones found there, but as soon as the young are fledged the birds wander. Mr. D. A. Cohen has taken typical *pinosus* at Alameda during the late fall and winter, while Mr. Emerson took a large series of juncos at Monterey and found more of them to be intermediate between *oregonus* and *thurberi*, than *pinosus*. This may be accounted for by the fact that they were taken at the close of the breeding season. The Point Pinos Junco begins breeding early and fully fledged young have been taken May 25 and undoubtedly the majority of the birds were on the move and mingling with the first of the juncos from counties north of the Bay. The nest and eggs of the Pt. Pinos Junco apparently do not differ from those of Thurber's Junco.

The Slate-colored Junco (*Junco hyemalis*) is frequently taken in California. One is recorded from Battle Creek, 1898, and two from Saint Helena, 1899, McGregor; from Los Angeles Co. (5); San Diego Co., 1884 (6); Gridley, Butte Co., (7); Haywards, 1880 Emerson (8); Amador Co., Kaeding, 1895. These were all taken in winter I believe. The only record of the occurrence of *Junco caniceps* in California which I can find is the single specimen,

a female, taken by Mr. W. B. Judson near Pasadena, on Oct. 26, 1894.

1. Zoe, 1, p. 238. Issued Nov. 13, 1890. 2. Ibid.
3. Zoe, 1, p. 239. Nov. 13, 1890. 4. Grinnell's Birds of
the Pac. Slope of Los Angeles Co., p. 28. 5. Ibid.
6. Belding, Land Birds of the Pacific District, p. 159.
7. Ibid. 8. Ibid.



MR. JOHN M. WILLARD of Oakland returned on July 27 after an eight weeks' outing and collecting trip in Lassen County at 5,000 feet elevation. Yellow, Aububon's and Macgillivray's Warblers were the only ones seen. On June 19 several nests of the Western Martin were found, but no eggs had been laid and the birds deserted. On June 20 a lone nest was investigated and contained three half-grown young and two addled eggs. Other nests were seen but could not be reached. Two broods of the White-cheeked Goose were observed on Eagle Lake, near which place the farmers report them as nesting plentifully in favorable years. Mr. Willard secured many interesting skins, the region being prolific in wood-peckers.

H. R. TAYLOR of Alameda reports the taking of a nest and five fresh eggs of the Californian Towhee at Pescadero, Cal., on July 8, both the size of the set and late date being unusual, while Wm. H. Kobbe of Ft. Mason, San Francisco, records a set of six eggs of the House Finch taken from a nest ten feet up in a dragon tree. The nest and eggs were as usual, aside from the size of the set. Evidently a prolific year with the birds!

RICHARD C. McGREGOR of Palo Alto will accompany the U. S. Coast and Geodetic Survey steamer *Pathfinder* on a sounding expedition to the Hawaiian Islands as official photographer. The steamer leaves San Francisco in September and will return in the spring, going thence to Alaska.

ON a recent hunting trip into the mountains of Monterey county Messrs. R. H. Beck and F. H. Holmes of Berryessa invaded the home of the Black Swift (*Cypseloides niger*), several specimens being secured. The swifts were frequenting oak-covered hillsides.

Nesting of the Western Flycatcher in San Gabriel Canon.

BY H. J. LELAND, LOS ANGELES, CAL.

[Read before the Southern Division of the Cooper Orn. Club, Dec. 29, 1898.]

THE west fork of the San Gabriel is the longest, most picturesque and most beautiful canon that I have had the pleasure of visiting in the Sierra Nevada Mts. It was in this canon between the first and fifteenth of June of the seasons of 1896 and 1898 that I had an excellent opportunity of watching this flycatcher in its summer home. In the darkest parts of the canon where the walls are close together and the alders thickest, one will always find the Western Flycatcher during the breeding season. Nest building begins not earlier than May 10 and fresh eggs are rarely found after June 10, excepting where the bird has been deprived of her first set.

Only one brood is reared and after incubation has begun the female, unless disturbed, does not leave the nest, being fed by the male, who is often the cause of the nest being found while performing this duty. In location, these nests vary considerably. In 1896 when I visited this canon in company with Mr. C. E. Groesbeck we collected eleven full sets of eggs with nests, and with a single exception all were taken from various situations in water alders, such as natural cavities, old woodpeckers' holes, between the trunk and loose bark and in the main crotches. The exception was taken by Mr. Groesbeck from one of the sides of the canon, on a small ledge covered with moss.

When I again visited this canon in 1898 the location of the nests was reversed. I found more than fifteen nests but only succeeded in collecting eight sets of eggs, the other nests either containing young or eggs in which incubation was far advanced. Of these but two were found in trees. The first was taken on June 6 from between the trunk and loose bark of a water alder; the nest was eight feet from the ground and contained four nearly fresh eggs. The other was found two days later and was situated close to the edge of a large hole in the under side of a hollow log which had fallen across the stream. The nest was about four feet above the water and contained three eggs, two of which were pipped. Had I not been fishing this nest would probably have escaped my notice, as I flushed the bird just as I was about to pass under the log. The other nests found were in small holes in the bank, or on ledges, usually where there was an abundance of moss and varied from two to fifteen feet from the bed of the canon. In all cases the nests were well protected from rain and any loose rock which might roll down from the sides of the cliffs. The nests taken from the bank were nearly all composed of moss, while those taken from the trees were lined with fine grasses and other material.



Macgillivray's Warbler in Alameda Co., Cal.

VERY little seems to be known of known of the nesting of Macgillivray's Warbler in Alameda county. Mr. H. R. Taylor found a nest last May containing two eggs, but the birds had deserted the nest on his next visit. A friend of mine found a nest last year among the bracken near the same locality. I think it was in 1891 that I first noticed the bird in the county, when I saw a male in Redwood canon where I

have subsequently seen these warblers in breeding season.

In 1896 I flushed a pair near Contra Costa Co. from a brushy ravine with a small brook running through it. The birds had evidently nested among the thick bracken growing close to the brook and extending along it about forty feet and up the side hill forty or fifty feet. This was about June 2 and two young birds were noted, not yet

able to fly. Not far from this pair of adults I noted a male and two more a mile further on. In several other places along the creeks I found birds in May and June and this year toward the last of May discovered a completed nest near where I had seen the young two years ago. The nest was about ten inches off the ground among a cluster of ferns in just such a locality as before described. I had to part the ferns to see the nest and the parents made quite a fuss, but abandoned the premises as I discovered ten days later.

It seems to be a common trait with this warbler to desert its nest after discovery. A friend found a nest in this county on June 3 containing two fresh eggs and on visiting it June 6 it held no more. On the 7th we both went to it and the female was incubating her two eggs. The nest was eight or ten inches from the ground among wild blackberry vines on the creek bank in an open part. The same collector took a nest and four fresh eggs two miles from this site on June 6.

Macgillivray's Warbler is shy, retiring and rather more common than expected if sought for without too much noise. Mr. W. O. Emerson reports this species at Haywards in various seasons as follows:—Female shot on May 2, 1881; nest of five downy young on May 22, 1881, on creek bank in thick brambles 2½ feet from the ground; male seen May 27, 1883, along creek; three males seen in a ravine April 12, 1895; two males seen on April 18, 1897, in thick brush on the hills.

DONALD A. COHEN.

Alameda, Cal.



Notes on the Nesting of the Slender-billed Nuthatch.

THIS interesting bird may be classed as a common resident in this locality, but notwithstanding, several pairs succeed in raising a brood each season they do not increase, although a pair are invariably to be found in their old breeding grounds every year. Scattered throughout the valley are many large white and black oaks and in these the birds secure their

food and find suitable nesting sites. They apparently remain paired the year round and are early nesters. My earliest nest was found March 23 and contained four fresh eggs and by the middle of April it would be hard to secure fresh eggs. A natural cavity is preferred but occasionally an old wood-pecker's cavity is used.

The nest is composed of grass, moss, strings, fur, hair and feathers, of which materials the cavity usually contains a large amount. The nuthatch is a close sitter and occasionally one or more eggs are broken while removing the bird. A full set contains from five to nine eggs, the average being seven or eight.

When the set is complete one of the birds remains on the nest and the other now leads a very active life for it furnishes food for its nesting mate. The bird covers considerable ground in looking for food and when it reaches a tree nearly every limb seems to be searched for lurking insects and when one is secured the bird takes the nearest way to the tree where its nest is concealed, and going to the cavity delivers the insect and is off again in search of another. While searching for food it can be heard calling at short intervals and it is during this time that I generally locate my nest, but if the bird discovers you it will change the method of reaching its nest, going in a round-about way and thus often eluding one, no matter how carefully he may watch, and if you do reach the tree and are seen before the bird delivers the insect, it will not, in most instances, deliver the food while you are about.

I have never found the birds in heavy timber, but found a pair on the high ridge between Sonoma and Petaluma valleys, to reach which they must have travelled through heavy timber. It was an ideal place for the birds, being sparsely covered with large oaks where they could find plenty of food and good nesting sites. My observations tend to show that these birds are beneficial and deserving of protection from all. I would like to see them increase and often wonder what becomes of those raised in this valley.

HENRY W. CARRIGER.
Sonoma, Cal.

Observations on the Nesting of *Parus rufescens* in Washington.

BY W. H. KOBBE, FT. MASON, SAN FRANCISCO, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Sept. 2, 1899.]

THE geographical distribution of the Chestnut-backed Chickadee as given by Davie is "Oregon, Washington, British Columbia and Southern Alaska." This is very true, but the center of abundance is in Washington State, where I observed this chickadee's habits, for the most part on Cape Disappointment. This cape is at the mouth of the Columbia River and extends about one mile into the ocean. It is very hilly and is covered for the most part by thick fir forests and the surface is also overgrown with a luxuriant growth of underbrush which is almost impenetrable. This seems to be the favorite country for this chickadee.

During my stay on the Cape I found the chickadees to be very common the year round, but especially so during the rainy winters, when large flocks of them could be seen scrambling about on the branches of the dripping firs in search of insects. They were often accompanied by flocks of the Oregon Chickadee (*Parus atricapillus occidentalis*) with whom they seemed to be on very good terms. I have also seen flocks of the Golden-crowned Kinglet in the same tree with the Chestnut-backed Chickadees, but cannot say that they mingle as freely as with the Oregon Chickadees.

Parus rufescens also seemed to prefer the more open woods along roads and trails to the dark recesses of the fir forests, and their peculiar lisping notes sound quite loud when heard in such places in the stillness of a drizzling day. Their notes are something like *the-the-the-te-te* pronounced with the tip of the tongue against the teeth. They generally keep this lisping up while feeding and I think very likely that it is a call note, because I have noticed that sometimes a single bird will fly into a tree and when it utters these notes the whole flock follows singly—one bird flying to the tree at a time. I have seen large flocks travel the whole length of about thirty fir trees in this manner.

During the summer of '98 I hunted diligently for their nests and was rewarded by finding one on May 20. On that day while hunting along the sides of a hilly canon I saw a small bird flying high over my head and, following it with my eye, saw it cross to the other side and enter, or, as I saw it, fly against a small black spot on a large dead stub. Upon further examination this spot proved to be a small hollow in the tree, which was five feet in diameter and twenty-five feet high. After watching awhile the bird came out and I was delighted to see that it was a Chestnut-backed Chickadee. She did not seem to mind my presence and after a few minutes re-entered the hole. This she did five or six times during the next half hour and I was at a loss to know whether she was building a nest or feeding her young, but as I could see nothing in her bill I determined to dig the nest out.

This was no easy matter because of the size of the stub, but with the help of my two brothers I was finally hoisted up to the opening which was twenty-one feet from the ground and one inch in diameter. When I reached the height of the cavity both parents showed a good deal of anxiety and were very nervous—hopping from branch to branch in near-by trees and keeping up their lisping *te-te-te*. The hollow extended directly downward and a partition of wood about three-quarters of an inch thick separated it from the outer air. This had to be broken through very carefully, since, if the cavity contained eggs, any chips falling in would break them. The nest was finally reached, however, six inches below the opening and contained seven perfectly fresh eggs which were white, minutely spotted with reddish specks, with the exception of one egg, which was pure white. They showed the following measurements: .62x.45, .61x.41-.62x.45-.60x.41-.59x.42-.61x.42 and .60x.42 inches.

The mass of hair, etc., in the hollow

had the form of a nest although I had to put it in a box to prevent it from falling to pieces. It is composed mostly of feathers and hair with a little gray moss and I also noticed a number of Steller's Jay's feathers in it. It measures four and a half inches across and about one inch deep and resembles nothing so much as a handful of floor-sweepings, especially the kind we sweep from the floors of our skinning rooms. Besides this nest I found two others. In one case I broke into the hollow but no eggs were to be seen, so the parents deserted on account of the exposure of their home. This hollow was about 20 feet from the ground. The third nest contained young and was 40 feet up.

Black Oystercatcher on Anacapa Islands.

ON June 4, 1899, we dropped anchor near the southern end of Anacapa Island and prepared to go ashore and collect, although it was already late in the day. While we were getting ready, a shrill whistle was heard, followed by a loud clattering noise, and as we looked up, two large, dark-colored birds flew past and lit on a rock near by, still keeping up their noisy clamor. Their bright red bills and shrill notes easily established their identity as Black Oystercatchers, though we had hardly expected to see any on the islands. We got into the skiff and started to row around the island in search of a landing place, from which we could reach the top of the island, no easy job anywhere, and appearing from the boat almost impossible. We had not gone very far when two Oystercatchers were seen on some rocks. They allowed us to come within shooting range and I dropped one with each barrel, one falling dead on the rocks, while the other, only wounded, fluttered into the water.

Although there was a strong current and a heavy swell running, the wounded bird swam easily and swiftly to another clump of rocks fifty or sixty feet away, upon which it clambered and then fell exhausted. It was a matter of no little difficulty to retrieve either of the birds, and without a strong, exper-

iented boatman it would have been impossible to have brought the boat close enough to the rocks for a person to jump out and in, without having the boat dashed to pieces. Both birds were retrieved without accident, however, and we went on in our search for a landing. Before long we saw another Oystercatcher in a similar place to the others, which was also secured. This bird was so unsuspicious that we were within thirty feet of it before we saw it, and were obliged to row further away before it could be shot.

These were all that we saw for the day, but on June 6, when we rowed along the other two islands of the group, six or eight of the birds were seen; all, however, in places where it would have been unsafe to have taken the skiff. All the birds were in pairs, except one that I shot, but on dissecting the three that I secured (a male and two females) it was evident that they were not breeding. All the birds that were seen were very tame and unsuspicious and paid very little attention to us. The crops of the three birds secured were filled with small mussels and they were all extremely fat.

H. S. SWARTH, Los Angeles, Cal.

Additional Notes on the Birds of Santa Cruz Island, Cal.

WITH much interest I read Mr. Jos. Mailliard's article on the birds of Santa Cruz Island in the May-June number of the BULLETIN, and finding his experience differed from mine in some particulars, I submit a few notes taken principally on the west end of the island in May, 1897. On June 5, 1895, I visited Scorpion Harbor for a few hours and landed on the square-looking rock mentioned by Mr. Mailliard. In addition to the breeding gulls and cormorants (Farallone and Baird's), there were many burrows of Cassin's Auklet which contained heavily incubated eggs or young birds. On the west end of the island there is an open, rolling stretch of land running back from the cliffs along shore. On this mesa the Horned Larks were abundant. While they were all in pairs and nesting, the nests were found

only by accident. Two nests were collected on Santa Cruz and one on San Miguel Islands. They were located by flushing the bird from the nest. In every case the nest was nearly stepped on before the bird flew and in each case it was placed in a small bunch of grass in a slight hollow and was right on the feeding ground. I found the towhee (*Pipilo maculatus oregonus*) not very wild and secured without much trouble a dozen or so. Among those taken was a partial albino having many white feathers scattered among the black on the head and neck.

In a deep, rugged canon some distance inland I found an ideal nesting place for the Dusky Warblers,—a cool stream of water with thickets of green bushes and tangled vines on both sides. Warblers were seen here but no nests were found. A Flicker's nest was seen in a tall dead tree in the bottom of the canon and farther down this canon I found the Santa Cruz Jays nesting. I saw and collected in two or three different canons near the ocean specimens of the song sparrow (*M. f. graminea*). Four or five raven's nests were found, one containing four eggs. The others had young in various stages of growth. The nests were in holes among the rocks and cliffs in steep gulches, with but one exception. This was placed in an overhanging cliff, twenty feet from the top and high above the ocean, and contained four young on the 8th of May.

R. H. BECK.

Berryessa, Cal., June 15, 1899.

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Breeding of the Dusky Horned Lark in Eastern Washington.

Of the birds I met on a trip through the state of Washington, none were more common than the Dusky Horned Lark (*Otocoris alpestris merrilli*). About 25 miles west of Walla Walla one reaches what is known as "Eureka Flats," a large space of territory which a few years since was covered with sage brush and bunch grass, but now all that is tillable is in grain and the steep hillsides are pastured. It is the custom among the farmers of this district to summer-fallow one half the land each year and it was in one of

these fields that I found this lark nesting.

I spent some time in a field of 160 acres, and in this field and along a road near by, I saw hundreds of the birds daily. There is no water in the district and the farmers haul it from a river and place it in cisterns. From the cisterns water is drawn for the horses, and this is the only place where the birds can obtain a drink, and it is a common sight to see numbers of them about the cistern on a hot day. The birds often remained for hours about the house or barn, for these furnished about all the shade there was on some of the farms.

I had been on the farm a few days when one bright morning at sunrise I heard birds singing which I thought were goldfinches, but on going outside no birds but the larks were about and I soon discovered that they were the songsters. I heard them often after that and would imagine that I was in California listening to the goldfinch, for it seemed strange to find a song bird in such a desolate, sandy country. Out in the summer-fallowed fields hundreds of Horned Larks were to be found, and it was a curious habit of the male to fly up into the air and by a series of circles mount higher and higher 'till it was lost to sight, although one could hear its note which was uttered every few seconds.

Scattered through the fields are numerous plants called "Chinese lettuce" and a species of lupine and under these the birds find a nesting place. A small hollow is scraped out and filled with pieces of wheat straw and dry lupine, with fine pieces of the latter for a lining. The eggs are three or four in number and vary considerably. When the set is incomplete or contains fresh eggs the bird often leaves the nest before you are near, but when the eggs are highly incubated the female sets close and remains near when disturbed. As the farmers have the weeds cut each year in the months of June or July, many nests are annually destroyed. Two or more sets are probably laid in a season as I saw large young in June and fresh eggs late in July.

HENRY W. CARRIGER.

Sonoma, Cal.

Notes on California Song Sparrows.

BY RICHARD C. MCGREGOR.

Melospiza fasciata pusillula Ridgway. The Salt Marsh Song Sparrow is described by Mr. Ridgway (*Auk*, Jan. 1899, 35) as having the "superciliary stripe and under parts more or less tinged with yellowish, the latter never (?) pure white." In a series of twenty-six skins of the race before me twenty-one are more or less yellowish. They are from the following localities: Alviso, Haywards, Palo Alto, Alameda and West Berkeley; five from West Berkeley, one from Alviso, and one from Alameda, lack the yellowish both of superciliary stripe and lower parts, but are of an equally small size. One of my smallest birds (189, West Berkeley, Feb. 2, 1889) is faintly washed with yellowish on breast, belly, sides and flanks; throat, chin and superciliary stripe white. Three examples (1518, 1529, Alviso, Sept. 9, 1896; and 1634, Haywards salt marsh, Oct. 13, 1894) have nearly the whole plumage suffused with dark yellowish, even the median crown stripe, neck and back being washed with yellowish. A series of lighter yellow birds were taken on Palo Alto marsh in March. The white birds were taken in February, one in September.

The specimens at hand indicate that the yellowish coloration is independent of season, age, sex or condition of plumage. This seems to be a case parallel to that of *Ammodramus sandwichensis bryanti* and *A. s. alaudinus*. I find that these two *Ammodrami* intergrade beautifully in size and the smaller (*bryanti*) often is lighter and less yellow than the larger (*alaudinus*).

In the Pacific R. R. Report IX, 479, Baird describes *Melospiza gouldii* as "similar to *M. heermanni* but very much smaller. Breast and sides conspicuously streaked with black; back and head distinctly streaked; length 4.70; wing 2.10; tail 2.38." Concerning the type Mr. Ridgway wrote me April 14, 1894: "The type of *M. gouldii* Baird, although of unknown locality only 'California' being its known origin, agrees with the southern coast specimens in its less rusty coloration." Baird emphasizes the fact that *M. gouldii* has the wing and tail very small. Now the white birds which I have referred to *M. pusillula* are the smallest song sparrows I have seen and if they agree with Baird's type, the subspecies would stand as *Melospiza melodia gouldii* Baird. Many specimens of song sparrows from the southern coast district, especially breeding birds, are needed before we can hope to map the range of the California *Melospiza*.

Measurements are given to show the relative sizes of Samuels' and the Salt Marsh Song Sparrows. They are taken from five skins of the white form and ten skins each of *samuelis* and the yellow *pusillula*.

	Wing.	Tail.	Exposed Culmen.
<i>pusillula</i>	White birds 2.24-2.37 (2.32)	2.06-2.18 (2.12)	.36-.40 (.39)
	Yellow birds 2.14-2.44 (2.29)	1.93-2.30 (2.10)	.38-.45 (.41)
<i>samuelis</i>	2.31-2.50 (2.38)	2.17-2.39 (2.29)	.41-.46 (.42)

Ammodramus samuelis Baird was described from two birds collected at Petaluma, Sonoma County, by E. Samuels. Skins from that exact locality not being available, three from San Geronimo, two from Ukiah and one from Cloverdale are here taken as probably representing this form. Five skins from the west coast of Mendocino County differ so remarkably from these and in fact from all others in my series of *samuelis*, some thirty skins, that I venture to give the coast bird a new name.

***Melospiza melodia cleonensis*, subsp. nov. MENDOCINO SONG SPARROW.**

Subsp. char. Size of *M. m. samuelis* but lighter and more rusty; black markings of back more restricted; spots of breast broadly edged with rusty; black on side of head and neck almost entirely replaced by rusty or reddish brown.

Type. No. 288, ♀ worn nuptial plumage, McGregor Coll., Westport, Mendocino Co., California, May 28, 1889. Wing 2.28; tail 2.10; exposed culmen .42.

Co-type. No. 287, ♂ worn nuptial plumage, McGregor Coll., Westport, Mendocino Co., California, May 28, 1889. Wing 2.38; tail 2.22; exposed culmen .42.

Range. Coast of Mendocino County.

The name is taken from Cleone, the town where three of the specimens were collected.

Mr. A. W. Anthony has kindly loaned me a large series of song sparrows which he took on Coronado Island, Lower California. These are undoubtedly of the same variety as the sparrow on San Clemente Island. The range of *Melospiza melodia clementae* is therefore extended to include the Mexican islands named.

If the specific name *Melospiza melodia* (Wilson) be reinstated as suggested in the *Auk* XVI, 183, then the song sparrow described by me in the March BULLETIN should stand *Melospiza melodia ingersolli*.



Lassoing a California Vulture.

BY F. STEPHENS, WITCH CREEK, SAN DIEGO CO., CAL.

[Read before the Northern Division of the Cooper Orn. Club, Sept. 2, 1899.]

I HAD heard of California Vultures being lassoed, but had been somewhat skeptical of the actual occurrence, because I had never seen their near relatives, the Turkey Vultures, gorged to the necessary extent. As others may have doubted the probability of this statement also I will relate the circumstances of the capture of a California Vulture near here with a riata.

May 24, 1899, I was at the principal dairy of the Santa Ysabel Rancho. Late in the afternoon Massimo Morelli, a Swiss vaquero employed on the ranch, came to me and said he had that afternoon caught a California Vulture with his riata and it was then at one of the other dairies, alive in a box. I arranged to purchase it and sent a wagon after the bird, which he returned with it after dark. As the box it was in was too small to allow the bird to stand upright I changed its quarters, but it seemed unable to stand up. I meant to keep it alive some time to study its habits in captivity and photograph it; however in the morning it was dead, greatly to my disappointment. On skinning it I found the flesh discolored on the lower part of the neck and believe the choking of the rope caused its death. The bird was an adult male in fair condition; weight 20 pounds; stomach nearly empty; length 45 inches; spread of wing 112 inches.

I have known Morelli several years, and know him to be reliable. The following is his account of the capture. He was out on the range looking after the stock as usual. Shortly after noon he saw this vulture at the carcass of a calf. As the bird seemed stupid he made a dash at it and threw his riata over its neck before it rose. He says the bird ran but did not seem able to fly. The bird proved difficult to handle, and struggled so that he was afraid it would get away, so he tied its wings together across its back with his handkerchief, and finally had to lash the bird to a pole to keep it from flapping under his horses feet, as he was afraid to drag it behind him too much. Massimo says when he caught the bird it disgorged and stunk horribly. From his manner I fancied that he received more of the veal than he liked. The bird struck him several severe blows with his bill.



H. R. PAINTON of College Park, a well known member of the Club, is serving his second term as principal of the New Almaden, Cal. public school.

W. B. JUDSON of Los Angeles has returned after a two years' absence in Dawson City, where he had mining interests.

Some Winter Birds of the Lower Colorado Valley.

BY W. W. PRICE, STANFORD UNIVERSITY, CAL.

[Read before the Northern Division of the Cooper Orn. Club, July 1, 1899.]

FROM Nov. 25 to Dec. 15, 1898, was spent in the Lower Colorado Valley about Yuma, Arizona, on the Lower Colorado at the head of the Gulf of California.

The following notes are given not with any idea of completeness, but merely as containing some of the more interesting facts then and there noted. The three weeks were exceptionally cold and stormy. The nights were often frosty, ice forming on rain-pools, even at the tide-water on the Gulf. Many of the small rodents and all the snakes and lizards had gone into hibernation.

Coming from the Colorado desert on the line of the railroad, into the valley of the Colorado, one passes over a gravelly mesa, thinly grown with *Larrea*, *Franseria*, *Chenopodium* and an occasional *Fonquiera* and *Olneya*. On reaching the alluvial bottoms, here several miles wide, a few mesquite trees, (*Prosopis*) are met with and everywhere the gray-green arrow-weed (*Tessaria borealis*), forms a dense, almost impenetrable undergrowth from five to eight feet high. These thickets are the favorite haunts of Abert's Towhees and countless Intermediate Sparrows. Near the river and along the sloughs are occasional cottonwood trees. Here were seen many birds mentioned in the list that follows. One general feature of the usual Arizona landscape surprised me,—the apparent absence of cacti. Only one species was observed, an *Opuntia*, on the sandy mesa about Yuma. None were noted in the alluvial bottoms of the Colorado or at the head of the Gulf.

A word as to the topography. On the Arizona and Sonora side of the river the gently-sloping mesa stretches south and east many miles without a break in its surface, bounded only on the extreme eastern horizon by barren, desert mountains. On the Californian side, between the river and the lofty Cordillera, the isolated desert ranges are more numerous. Of these the Pinto, Cocopah and Myola are the largest and from a distance of a few miles seem absolutely destitute of vegetation. In this region much of the country is lower than the banks of the Colorado, and subject to overflow during the summer floods of June and July, when the snow melts at the sources of the river. A little south of the Arizona—Sonora line and about ten miles west of the river are some very remarkable hot springs and mud volcanoes. At the head of the gulf are wide, level mud-flats made up of silt continually brought down by the river. On the Californian side these are of much greater extent,—desolate flats, forty or fifty miles long and from ten to twenty miles wide on which absolutely nothing grows. They lie close about the foothills of the desert mountains and are everywhere saline.

Over the southern part meander shallow sloughs of crystal water so intensely salt that great masses of pure rock salt cover the bottoms and are piled up in glistening banks along the margins. In places the surface of the flats is soft, slimy mud into which the foot sinks an inch or more; in other places the surface is hard, cracked by the sun and covered by a frost-like salt incrustation. This whole region is overflowed by the high spring and summer tides, the height of which is determined by the direction of the wind and the volume of water in the river. A southern gale at the time of the summer floods causes the highest rise in the tides. All along the river bank and gulf shore, and sometimes scattered far inland over the mud flats, are great "windrows" of drift brought down by the floods. In these may be noticed many kinds of woods:—logs of willow, cottonwood, pine and juniper with occasional railway ties and bridge timbers.

From Yuma southward to the Gulf of California there seem to be three distinctive floral areas, but the bird life does not appear so clearly differentiated. *First*: there is the flora of the sandy, gravelly mesa, more typically "desert" than that of either of the other floral areas. It is characterized by a rather uniform growth of *Larrea tridentata* through which are interspersed occasional bushes of *Asclepias subulata*, *Dalea emoryi*, *Fonquiera splendens*, *Olneya*—, *Franseria*—, *Chenopodium*— and *Artimesia*—. The vegetation is nowhere dense; the

individual plants are from 30 to 100 feet or more apart, often with sand wind-heaped about their bases. *Second*: the flora of the alluvial river-bottom, which may again be divided into the area annually overflowed by the river and that lying a few feet higher and adjoining the desert mesa. The flora changes immediately on entering the river bottom which is separated from the mesa by irregular bluffs 50 to 100 feet high. *Tessaria* abounds with occasional clumps of *Baccharis*, *Chenopodium*, *Atriplex*, a scattering growth of two mesquites, *Prosopis juliflora* and *P. pubescens*. Nearer the river and the many lagoons, which mark old river beds, are cottonwood, *Populus fremontii*, willow, *Salix* —, with an undergrowth of tule, cane and occasional dense thickets of "wild hemp." Along the ditches and some of the overflowed land *Nicotania glauca*, *Xanthium canadense* and *Amaranthus* — grow in profusion. *Third*: on the lower river below the limit of willow, cottonwood and "hemp" and along the Gulf are wide meadows of a sea grass, *Uniola palmeri*, and scattering bunches of another *Chenopodium*, and a *Spirostachys*, both large bushes from three to eight feet high.

My route lay from Yuma south by team into Sonora about fifty miles south of the line, thence by boat fifty miles to the mouth of the river and south on the Gulf about forty miles to a point on the Californian shore; thence back to Yuma by land, usually near the river bank.

1 *Aechmophorus occidentalis*. WESTERN GREBE. A large grebe which I took to be of this species was often seen about our boat at the mouth of the Colorado.

2 *Podilymbus podiceps*. PIED-BILLED GREBE. Several specimens seen in a slough about six miles south of Yuma.

3 *Uria* sp? GUILLEMOT. Abundant off Montague Island at the head of the Gulf.

4 *Larus occidentalis*. WESTERN GULL. Abundant along the Gulf shore, and noted at many points along the river to within forty miles of Yuma.

5 *Larus delawarensis*. ?. RING-BILLED GULL. Two small gulls were observed wheeling over a freshly plowed field near Yuma Nov. 29. They sometimes dropped for a moment to the ground as if picking up insects or worms.

6 *Sterna* — sp? A large tern was noted on the Gulf.

7 *Sterna* — sp? A tern about the size of *S. fosteri* was seen following the tides back and forth on the lower river and opposite Montague Island.

8 *Phalacrocorax penicillatus*. ? BRANDT'S CORMORANT. A large cormorant was observed along the lower river but no specimens were taken.

9 *Pelecanus erythrorhynchos*. AM. WHITE PELICAN. Extremely abundant along the lower river and Gulf. On the 10th of December hundreds of flocks were observed flying in a southerly direction over a point 50 miles north of the Gulf. At times several flocks would unite into one immense gathering and fairly darken the sky with their evolutions. This bird was noted on all the bars along the river and often would be seen fishing.

10 *Anas boschas*. MALLARD. Common; several shot.

11 *Anas penelope*. WIDGEON. A small flock seen on a lagoon south of Yuma Nov. 27.

12 *Anas carolinensis*. GREEN-WINGED TEAL. Common.

13 *Spatula clypeata*. SHOVELLER. Common at many points along the river.

14 *Aythya affinis*. LESSER SCAUP DUCK. One was shot on the lower river.

15 *Aythya collaris*. ? RING-NECKED DUCK. Large flocks of a duck I supposed to be of this species were seen at the head of the Gulf.

16 *Charitonetta albeola*. BUFFLE-HEAD. Several seen on the lower river.

17 *Oidemia* — sp? SCOTER. Noted in Gulf below Montague Island.

18 *Oidemia deglandi*. WHITE-WINGED SCOTER. Noted near the Californian shore twenty miles below Montague Island.

19 *Branta* — sp? BRANT. A brant, probably *B. bernicla*, was abundant everywhere along the river south of the line. Great numbers were seen on a salt pond, called Laguna Salada, about forty miles south of the line. They were especially abundant on the various mud flats near the "Hardy" slough.

20 *Ardea herodias*. GREAT BLUE HERON. Abundant along the whole river. On the Californian shore of the Gulf 30 or 40 miles south of the mouth of the river they were sometimes seen, three or four congregated together on the desolate shore line.

21 *Ardea virescens*. GREEN HERON. One was shot about six miles south of Yuma.

22 *Nycticorax nycticorax naevius*. BLACK-CROWNED NIGHT HERON. Common along the river and sloughs, from Yuma south to within ten miles of the mouth of the river.

23 *Grus mexicana*. SANDHILL CRANE. Abundant at a salt flat, Laguna Salada, and often seen along the river. According to the Mexicans they feed in large numbers on the bulbous root of some plant on the over-flowed ground and are numerous according to the abundance of this food.

24 *Fulica americana*. AMERICAN COOT. Common on all the fresh water lagoons and sloughs.

25 *Tringa bairdi*. BAIRD'S SANDPIPER. Abundant along the river and Gulf shore.

26 *Ereunetes occidentalis*. WESTERN SANDPIPER. A few sandpipers were noted along the Colorado at Yuma.

27 *Limosa fedoa*. MARBLED GODWIT. Abundant on mud shore line about 30 miles below the mouth of the Colorado. A dozen were killed with a single discharge of the gun.

28 *Sympetrum semipalmata inornata*. WESTERN WILLET. Common along the river; often three or four could be seen together on the mud-flats at the water's edge.

29 *Numenius longirostris*. LONG-BILLED CURLEW. Common on the lower river and often seen on the mesa many miles from water.

30 *Aegialitis vocifera*. KILLDEER. Not uncommon about Yuma and south to salt water in the river.

31 *Callipepla gambeli*. GAMBEL'S PARTRIDGE. Abundant in the river bottom of the Colorado to about ten miles above the mouth. Here the last timber gives way to the wide salt marshes and mud flats.

32 *Zenaidura macroura*. MOURNING DOVE. Common in Colorado Valley about Yuma.

33 *Columbigallina passerina pallescens*. MEXICAN GROUND DOVE. Two or three individuals were seen a few miles south of Yuma Nov. 27 and Dec. 13.

34 *Cathartes aura*. TURKEY VULTURE. Noted about Yuma.

35 *Accipiter velox*. SHARP-SHINNED HAWK. Noted many times along the river in the thickets of willow and cottonwood.

36 *Accipiter cooperi*. COOPER'S HAWK. A single specimen was shot by a slough near Yuma.

37 *Buteo borealis calurus*. WESTERN RED-TAIL. Common over the whole region north of salt water in the river.

38 *Buteo abbreviatus*. ZONE-TAILED HAWK. A great fire in the marsh lands and cane-brakes about fifty miles south of the Arizona line Dec. 3, attracted hundreds of these birds, undoubtedly to prey upon the abundant cotton rats (*Spermophilus*), and other rodents driven from their retreats by the heat. Some were circling high in the air, others wheeling or plunging into the dense black smoke. A few individuals of this hawk were seen at Yuma.

39 *Aquila chrysaetos*. GOLDEN EAGLE. A single specimen was seen on the bank of the Colorado, a short distance above Montague Island.

40 *Falco peregrinus anatum*. DUCK HAWK. One was observed on the Californian shore of the Gulf below Montague Island.

41 *Falco sparverius deserticola*. DESERT SPARROW HAWK. Common everywhere along the river. When we were out on the Gulf many miles from land, a male alighted for a moment on the boom of our little schooner.

42 *Polyborus cheriway*. ? AUDUBON'S CARACARA. A bird I took to be of this

species was seen by a slough south of Yuma.

43 *Asio accipitrinus*. SHORT-EARED OWL. Seen only once, Dec. 4, on a marsh on the Lower Colorado.

44 *Megascops asio trichopsis*. ? MEXICAN SCREECH OWL. The call of this or a nearly related owl was heard about our camps along the river.

45 *Bubo virginianus subarticus*. WESTERN HORNED OWL. Several were seen at night-fall along the river; they were often heard "hooting" at night.

46 *Speotyto cunicularia hypogae*. BURROWING OWL. One seen at its burrow on the mesa near Yuma.

47 *Geococcyx californianus*. ROADRUNNER. Common about Yuma and south nearly to the Gulf.

48 *Ceryle alcyon*. BELTED KINGFISHER. A few were seen along the river.

49 *Dryobates scalaris bairdi*. BAIRD'S WOODPECKER. Common in the river bottom and south as far as the timber extends.

50 *Melanerpes uropygialis*. GILA WOODPECKER. Common wherever there was timber along the river bottom.

51 *Calaptes caser*. RED-SHAFTED FLICKER. Common in the river bottom.

52 *Phalaenoptilus nuttalli nitidus*. ? POOR WILL. A Poor-will alighted on an open sandy spot above camp on the evening of Dec. 2. Seen but not taken.

53 *Trochilus alexandri*. ? BLACK-CHINNED HUMMINGBIRD. A small hummer was seen about the blossoms of the tree tobacco near Yuma.

54 *Sayornis saya*. SAY'S PHOEBE. Common about Yuma and south to the Gulf. I saw one apparently at home on the barren foot-hills west of the mud flats and about twenty miles south of the mouth of the Colorado.

55 *Sayornis nigricans*. BLACK PHOEBE. Several seen along the Colorado.

56 *Pyrocephalus rubineus mexicanus*. VERMILION FLYCATCHER. Common in the river bottom south of Yuma, usually near the neighborhood of water.

57 *Otocoris alpestris arenicola*. ? DESERT HORNED LARK. Seen on the mesa about Yuma and on sandy soil along the lower Colorado.

58 *Corvus corax sinuatus*. ? AMERICAN RAVEN. Common about Yuma. The birds seen may possibly have been the White-necked Raven, as no specimens were examined.

59 *Molothrus ater obscurus*. DWARF COWBIRD. Abundant about corrals at Yuma.

60 *Agelaius phoeniceus longirostris*. SONORAN RED-WINGED BLACKBIRD. A few seen about Yuma and along sloughs a few miles south of the line.

61 *Sturnella magna neglecta*. ? WESTERN MEADOWLARK. A meadowlark was common in hay fields in the bottoms south of Yuma.

62 *Scolecophagus cyanocephalus*. BREWER'S BLACKBIRD. Common about Yuma and at many points along the river.

63 *Carpodacus mexicanus frontalis*. HOUSE FINCH. Abundant in great flocks in the bottoms.

64 *Astragalinus lawrencei*. LAWRENCE'S GOLDFINCH. A few birds seen about Yuma and along the river. On Dec. 2 immense flocks were seen feeding on the seeds of *Amaranthus* at the line.

65 *Pooecetes gramineus confinus*. WESTERN VESPER SPARROW. Two or three were seen in the bottoms south of Yuma.

66 *Ammodramus sandwichensis alaudinus*. WESTERN SAVANNA SPARROW. A few seen in hay-fields south of Yuma.

67 *Ammodramus rostratus guttatus*. ? ST. LUCAS LARGE-BILLED SPARROW. Quite common in the marsh lands on the lower river and head of the gulf. It was not seen away from the coarse sea grass, *Uniola palmeri*.

68 *Chondestes grammacus strigatus*. WESTERN LARK SPARROW. A few were seen about Yuma and on the open fields in the river bottom.

69 *Zonotrichia leucophrys intermedia*. INTERMEDIATE SPARROW. Extremely abundant all over the bottom lands wherever there were coarse weeds or brush wood.

70 *Spizella socialis arizonæ*. WESTERN CHIPPING SPARROW. A single specimen was shot on the mesa at Yuma Nov. 27.

71 *Spizella breweri*. BREWER'S SPARROW. Seen only on the mesa near Yuma.

72 *Junco oregonus*. ? OREGON JUNCO. A small flock of juncos was seen in a willow thicket near the line, Dec. 2.

73 *Amphispiza belli cinerea*. ? GRAY SAGE SPARROW. A few were seen in dense thickets of *Atriplex* near Yuma.

74 *Melospiza fasciata fallax*. DESERT SONG SPARROW. Common in damp thickets along the Colorado. I did not observe a song sparrow in the salt marshes.

75 *Pipilo aberti*. ABERT'S TOWHEE. Extremely abundant in the river bottoms.

76 *Phainopepla nitens*. PHAINOPEPLA. Abundant wherever there were mesquite trees infested with mistletoe. With many other birds they feed upon the ripe berries.

77 *Lanius ludovicianus excubitorides*. WHITE-RUMPED SHRIKE. Several were seen on the mesa and in the river bottom.

78 *Dendroica auduboni*. AUDUBON'S WARBLER. Abundant everywhere in the river bottom.

79 *Geothlypis trichas occidentalis*. WESTERN YELLOW-THROAT. Not uncommon in the river bottom among tule and cane thickets.

80 *Anthus pensylvanicus*. AMERICAN PIPIT. Common along the river from Yuma to salt water. Often seen in scattered flocks on the sand bars and low banks.

81 *Oroscoptes montanus*. SAGE THRASHER. Common in the dry brushy thickets in the river bottom.

82 *Mimus polyglottos*. MOCKINGBIRD. Common in the dryer portions of the river bottom.

83 *Heleodryas brunneicapillus*. CACTUS WREN. Common among mesquite trees in river bottom.

84 *Salpinctes obsoletus*. ROCK WREN. A few were seen about deserted and ruined buildings in Yuma.

85 *Thryothorus bewickii leucogaster*. BAIRD'S WREN. Observed only once, Dec. 1, on the bottom near the Sonora line.

86 *Cistothorus palustris paludicola*. TULE WREN. Common in tule tracts and about the salt marshes at the head of the Gulf.

87 *Auriparus flaviceps*. VERDIN. Common in mesquite and willow thickets; sometimes seen in scattered flocks of ten or twenty.

88 *Regulus calendula*. RUBY-CROWNED KINGLET. Common in bottoms wherever there were trees and bushes.

89 *Polioptila plumbea*. PLUMBEOUS GNATCATCHER. A single specimen was seen on the mesa south of the line.

90 *Sialia mexicana occidentalis*. WESTERN BLUEBIRD. Common in the river bottom, feeding largely on the ripe berries of mistletoe.

91 *Sialia arctica*. MOUNTAIN BLUEBIRD. Common about alfalfa fields in the river bottom. I did not observe this species feeding on the mistletoe.

* * * * *

Echoes from the Field.

Bobolink at Monterey and White-throated Sparrow at Santa Cruz, Cal. Mr. C. Littlejohn's capture of a Bobolink at Redwood City is not the first record for California. On Oct. 14, 1896, I shot a female Bobolink near Monterey. This capture has been reported at different times, but so far as I am aware, has not yet appeared in print.

On New Year's Day, 1894, I took at Santa Cruz a male White-throated Sparrow and later saw another. This was the fifth record for the state, four others having been previously reported (Merriam). These with the four reported by Mr. McGregor gives a total of nine White-throated Sparrows for California.—GEO. F. BRENNER, Phoenix, Arizona.

Nesting Notes from Los Angeles, Gal. SNOWY PLOVER (*Aegialitis nivosa*), Redondo, Los Angeles Co., Cal., Apr. 25, 1899. Set of three taken. Incubation so far advanced that the set could not be saved. The earliest nesting date noted in Mr. Grinnell's "List of the Birds of Los Angeles Co." is May 1, 1897.

AMERICAN BITTERN (*Botaurus lentiginosus*). Alamitos, Los Angeles Co., Cal., May 14, 1899. While tramping through the marsh at the north-east end of Alamitos Bay an American Bittern was flushed and upon search a nest containing three eggs was found. The nest was composed of dry marsh grass and lined with finer grass of the same variety; it was nearly flat on top with only a slight depression in the center to hold the eggs in place. The eggs were fresh. This is the first instance on record of this bird breeding in Los Angeles Co.

MARSH HAWK (*Circus hudsonius*). Alamitos, May 14, 1899. A nest containing five young was found by Mr. H. J. Leland in a bunch of weeds and nettles, surrounded by marsh grass which had recently been cut with a mowing machine, the operator being kind enough to leave the nest and young birds alone. A few of the weeds had been broken down to a height of about eight inches, on which a nest of coarse sticks and straw was placed. The nest was flat on top and measured fourteen inches across. The young ranged in size from a little downy fellow to one nearly quarter-grown.

COMMON TURNSTONE (*Arenaria interpres*). I have an immature bird of this species taken at Long Beach on Aug. 24, 1897. Mr. Grinnell in his list does not note the occurrence of this bird in Los Angeles Co.

HOWARD ROBERTSON, Sta. A. Los Angeles, Cal.

Notes on the Black Swift in Monterey Co., Gal. While spending a few days in Monterey Co. on a fishing trip last June I secured several skins of the Black Swift and noted one or two things in their actions that might prove of interest. The birds were seen principally on the tops of the high ridges in company with Western Martins. The rapidity with which they flew caused many exclamations of astonishment from our party and made our necks tired from continual twisting to keep two birds in sight at once. My companion, Mr. F. H. Holmes, remarked that a "rubber neck" would be a great convenience to any one watching the swifts. One moment a bird would be directly over us and in a few seconds perhaps be a half mile away. Judging from the company they kept I am inclined to think they nest in trees with the martins rather than in the cliffs with the White-throated Swifts.

The latter species seemed to keep more in the canons, flying and circling about near the cliffs. I climbed up and had the pleasure of looking into the crack of a cliff where one or two of their nests were hidden, but could not possibly see or obtain the eggs which were probably in several feet. Three or four Audubon's? Hermit Thrushes were heard singing, usually about dark, high up in the thick redwoods. A lonely Cal. Vulture was seen two or three times sailing about near the summit of the range. While coming home along the sea coast a flock of 40 or 50 Heermann's Gulls was noted flying north close to shore.

R. H. BECK, Berryessa, Cal., Aug. 14, '99.

Notes from Los Angeles, Gal. *Spizella breweri*. On May 2, 1899, a great many Brewer's Sparrows were observed in the San Fernando Valley. The majority of those seen were in pairs, and the males were generally sitting on the tops of the bushes, singing. On May 24 we revisited the place and while they were not as numerous as before, quite a number were seen. One nest was found containing three young. It was built in a candle cactus near the main stem and about one foot from the ground, and was composed mainly of small rootlets and was not apparently lined with any finer material. The young were only a day or two old.

Zonotrichia leucophrys. Although this bird has not been recorded from Los Angeles County before, I believe that it is of regular occurrence here, though probably not in any great numbers. On April 22, 1898, I shot an adult female from a

flock of Intermediate Sparrows. On April 26, 1899, I secured another, also a female, and on March 29, 1899, I saw one which I did not shoot. It was feeding in the yard with the chickens and as I was within ten feet of it I could easily distinguish it from the Intermediate Sparrows about.

Junco hyemalis. On Nov. 3, 1898, I shot two Slate-colored Juncos, both males. These two birds were by themselves, though I saw a large flock of Thurber's Juncos but a short distance from where I secured them.

Coccothraustes vespertinus montanus. On Oct. 30, 1898, on the summit of Mt. Wilson, I secured two adult female Western Evening Grosbeaks. No others were seen during the two days we remained in the locality.

Sitta canadensis. In the fall of 1898 I found the Canada Nuthatch comparatively abundant in the vicinity of Los Angeles. I shot the first on Sept. 16 and was very much surprised at finding this species so far from the mountains. A few days later I secured another and from then on they were seen almost daily until about the middle of October when they disappeared. Mr. Robertson informs me that he saw one in a pepper tree at the extreme end of Point Firmin on Sept. 8, 1898.

ALBINOS. *Zonotrichia leucophrys intermedia*. I shot a partial albino Intermediate Sparrow on Feb. 5, 1899. This bird is normal except for the tail, which is white with a dusky bar across it near the tip. One tail feather is normal in color and is about $\frac{1}{8}$ inch longer than the others.

Agelaius pharneceus. On May 7, 1899, I saw a male Redwinged Blackbird, with almost all the primaries and secondaries of each wing, pure white. I did not shoot it and have seen it several times since in the same place, where there is a colony breeding.

H. S. SWARTH, Bradbury Blk., Los Angeles, Cal.

Nesting of the California Cuckoo. Six o'clock in the evening of June 17, 1899, found me trudging wearily along the bank of a running stream about ten miles north of San Jose. I had been out all day and having had poor luck had given up collecting and was walking back the wagon road along the creek bank to my horse. Between the stream and the road is a growth of young willow and maple trees into which I cast occasional glances. Hearing a rustle, and seeing a bird leave a clump of willows I stopped, and noticed a nest near the top of one of the trees, and took it to be a nest of the Black-headed Grosbeak. One of the boys who was with me climbed to the nest and reported three plain blue eggs, which I at once concluded were eggs of the California Cuckoo.

The bird left the vicinity and did not return, but the glance I had of her as she left the trees was enough to assure me that my identification was correct. The nest was at the top of a small willow, in a fork, nine feet from the ground and was a very frail structure, composed of twigs, straw and rootlets, well hollowed, and sparingly lined with fine grasses. The eggs are three in number, greenish-blue in color and very much resemble eggs of the Yellow-billed Cuckoo in my collection. One of them was fresh, the others slightly incubated. The same day I found a shell of an egg of this species on the ground, which had evidently been hatched, but a half hour's search failed to reveal the nest. At another place a bird was seen so I conclude that they breed sparingly in the locality every year.

W. L. ATKINSON, Santa Clara, Cal. Aug. 13, '99.

Notes from Alameda, Gal. Oct. 6, 1898, I took a Western Winter Wren, the third I ever noted in this district. Shot a ♀ Californian Thrasher that was singing, perched on top of a bush. Like many others of its kind it was covered with vermin, especially on the neck and breast. Perhaps the bird's bill is so long as to prevent it reaching these parts. Does the ♀ usually sing?

American Pipits were noted sparingly on the Coast Range Mts. along the boundary of Alameda and Contra Costa counties on April 1. These were late to migrate or were possibly about to breed there. Long-tailed Chats were common as usual in localities visited this season, but the birds were seldom seen on account

of their shyness. A male was perched upon a small tree-top along the county road in the town of Haywards, singing away in apparent security.

I discovered three nests of the Western Yellowthroat on May 8 in a patch of rushes, overgrown with willows. Two were deserted and the third, which was quite large and elaborately constructed of dead blades of cat-tails and sparsely lined with the long hair of cattle, was thrust sideways, by a cow perhaps, and contained four fresh eggs, two of which were slightly damaged.

In about one-half of the completed nests of Pileolated Warbler I have found, the bird has deserted her nest and the immediate premises. On April 30, 1899, Mr. Harry Sheldon and I were collecting along a creek when he made the unusual find of a nest and *five* eggs of the Russet-backed Thrush, which I secured.—D. A. COHEN, Alameda, Cal., July 15, '99.



The Nesting Haunts of the Black-throated Gray Warbler.

THE accompanying plate represents one of those charming bits of woodland which Messrs. Henry W. Carriger, John M. Welch and the writer were permitted to pass through in the Sierra Nevada Mts. early in June of this year. The camera has preserved the mere outlines of the scene, but the freshness and brilliancy of the morning and the ecstatic songs of the woods' feathered denizens are of necessity lacking. We were roaming aimlessly through the woods, following only such paths as fancy might dictate, when Mr. Carriger's attention was drawn to a neat, greyish nest on the drooping limb of a pine, to which a pair of Black-throated Gray Warblers presently claimed ownership. Being near a road-house a short ladder was secured later in the day and the set collected on its original limb.

Mr. Carriger contributes the following notes on this species from his '99 experiences: "The Black-throated Gray Warbler was probably the commonest warbler met with on our trip and a number of nests were located. Several were found in the deer brush (*Ceanothus*) at from five to nine feet up and two were placed in pines, one twelve feet up on a small limb (shown in the illustration) and another 52 feet up on a horizontal limb. The birds showed little anxiety and would fly off at our approach and remain near by, chirping occasionally. While photographing the nest both birds remained in the pine overhead but did not approach nearer than ten feet. While we often heard

this warbler singing, few were noticed excepting on such occasions as when we collected a nest."

The scene portrayed in the plate is an ideal one of the open growths in the Sierras. It seems truly a transformation to step from the deep, dark timber where the reign of Silence is seldom broken and where the birds seem loath to commit the sacrilege of song, to the open hillsides where the carpet of luxuriant "mountain misery" is ever green, and where the sunlight sifts down in fantastic shafts through the pines and cedars with beautiful varied effects. Here the warblers and vireos pour forth their most exquisite songs and the creepers and nuthatches industriously gyrate up and down the oaks and pines while the woodpeckers and sapsuckers drum idly on the dead stubs. Here all bird life dwells in seeming harmony, and as recurrent thoughts carry one back to the hum-drum of city life I almost wish I might linger alway in this idyllic spot.

C. BARLOW.



MR. RALPH ARNOLD, a member of the Cooper Club, was united in marriage to Miss Frankie Winninette Stokes at Alhambra, Cal., on July 12, 1899. Mr. Arnold has always been one of the most active members of the Club and has done extensive work in ornithology throughout Los Angeles County, his former home. He was president and a graduate of the class of '99 of Stanford University, where his popularity throughout his several years' course was unbounded. As leader of the Stanford Mandolin Club at the University and on its numerous tours, he added constantly to an already large circle of friends, all of whom will join in cordially congratulating him as one most worthy of the fair bride he has won from the Southland. Mr. and Mrs. Arnold will locate at Menlo Park, Cal.



Photo by C. Barlow.

NESTING HAUNTS OF THE BLACK-THROATED GRAY WARBLER.

(Showing H. W. Carriger collecting nest, in company with Jno. M. Welch.)

BULLETIN
of the
Cooper Ornithological Club
OF CALIFORNIA.

Published bi-monthly at Santa Clara, Cal., in the interests
and as Official Organ of the Club.

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Business Managers.

Subscription, (in advance) - - - - One Dollar a Year.
Single Copies, - - - - - 25 Cents.
Six Copies or more of one issue, - - 12½ Cents Each.
Foreign Subscription, - - - - - \$1.25.
Free to Honorary Members and to Active Members not
in arrears for dues.

Advertising rates will be sent on application.

Advertisements and subscriptions should be sent to the
Business Managers.

Exchanges should be sent to the Editor-in-Chief.

Notes of interest and striking ornithological photo-
graphs for illustration are solicited from members.

When extra copies are desired, they should be ordered
at the time of communicating the article.

Write plainly and confine your article to one side of the
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Entered at the Santa Clara Post-office as second class
matter.

This issue of the Bulletin was mailed Sep. 15.
EDITORIAL NOTES.

With this issue the BULLETIN publishes Mr. W. W. Price's list of the winter birds of the Lower Colorado Valley which is the first of numerous valuable lists to appear in its columns from time to time. Local lists, those covering defined areas which are subject to certain peculiar climatic conditions, as well as lists which represent the ornithology of certain mountainous districts or rivers, all have a value, that of a purely local list being of relatively less value than one covering a generally known region of interest. The value of a list is enhanced in a measure by its topographical preface which should and usually does precede the list proper, thus giving the reader a perfect idea of the environments in which the birds noted are found, and from which much may be learned of the preferences of individual bird species for certain faunal areas.

A list of any section of unusual interest once recorded becomes a basis for future workers in the same region and there remain many areas in California from which thorough lists would be of value to present and future bird students. Each member of the Club should work up as complete a list as possible of his county, to which he may add from year to year, always finding in the extension of his list an incentive to hunt out and add new records as time permits him to go afield.

Contributions which have appeared in the BULLETIN for 1899, with very few exceptions, have been from members of the Cooper Club. All articles appearing in the BULLETIN constitute, in a sense, the proceedings of the Club, and papers which are indicated as having been read before a meeting of either Division do not of necessity bear any distinction over those which are printed without the usual presentation before the Club. The transactions of the Club are formally presented to a majority of its members for the first time through the BULLETIN and whether or not a paper is given a formal reading depends largely upon the date of its receipt. Thus all contributions are placed on an equal footing in-so-far as their status as a part of the "proceedings" of the Club is concerned.

Our modest though wide-awake contemporary, the *Oologist*, has introduced a pleasing, valuable and interesting feature in its June-July number in the form of a complete bibliography of the ornithological articles appearing in current North American scientific journals. Thus at a glance, one may know just what has been published from the titles of the articles, and by a simple index the magazine in which the article was printed is indicated. This department of the *Oologist* will prove a satisfaction to all ornithological workers, who will also appreciate a recent photograph of Mr. Lattin appearing as frontispiece in the same issue.

In the *Auk* for July, 1899, appears a brief, sensible discourse in which is shown the fallacy of the argument recently introduced by various writers in attempting to mitigate the sentiment which has attached to the needless killing of birds by bringing up the proposition that it is just as cruel to kill domestic fowls. The writer shows that in the case of the domestic fowl it is within the province of man, and to his interests, to keep even the ratio of supply to those destroyed. With the birds, man's agency is simply to kill, without the means or ability to restore.

With the next and last number of the year we shall print a complete list of the members of the Club, together with their current addresses. By the way, non-subscribers will observe that the BULLETIN is nearing its first mile stone, having appeared promptly on or before the fifteenth of each publishing month, and those who wish the file complete will do well to order while it is possible to secure the back numbers. The BULLETIN aims to present the latest and freshest bird news, a point on which we invite comparison.

What has become of the Life History Committee of the Southern Division and the excellent plan of work upon which it commenced?

A charming paper by Mr. A. W. Anthony entitled "A Night at Sea" will be one of the features of our November number.

Correspondence.

The Individuality of Eggs.

In the July BULLETIN Mr. D. A. Cohen tells of the individuality of the Oregon Towhee as observed by him, peculiar characteristics in eggs of particular pairs reappearing from season to season, and states: "I can never think otherwise than that Major Bendire was correct in asserting that eggs of individual birds in consecutive sets bear marked resemblance to each other."

I am inclined to believe Mr. Cohen in error in crediting the theory of individuality to the lamented Major Bendire. That learned Oologist was, in fact, somewhat skeptical when the writer first published a paper in *The Vidologist* on this interesting subject, taking for example the nidification of the Golden Eagle as observed in the case of particular pairs consecutively for a number of years.

Mr. William Steinbeck of Hollister, Cal., has assured me that his extensive experience in collecting sets of eggs of the Golden Eagle in San Benito county fully bears out the assertion of the theory of individuality. Mr. A. M. Ingersoll informs me that he has collected eggs from a certain Golden Eagle's nest near San Diego for five years past, and in each instance one egg of the set was almost immaculate. In contravention of the theory which these instances support, Major Bendire stated of this eagle in "Life Histories" (Vol. I): "As these birds are usually seen only in pairs at all times of the year, I am inclined to believe they remain mated for life, notwithstanding the fact that the eggs differ very greatly in markings from year to year, although coming from the same nest and evidently from the same pair of birds."

H. R. TAYLOR, Alameda, Cal.



A PROTEST.

In the *Auk* V, Apr., 1888, p. 168, Mr. J. Amory Jeffries describes *Trochilus violajugulum*, taken April 5, 1883, at Santa Barbara, Cal. The type has remained unique until this day and it is now high time, I think, to enter a protest against retaining this name upon the Checklist of North American Birds. With the numerous collectors and active work that has been done in California since that date, it is hardly necessary to point out that if this was a valid species other individuals would have been secured long ere now. Whether this bird is a hybrid or not is immaterial, as it surely deserves no better place among the North American birds than Townsend's Bunting, Lawrence's, Cincinnati, Brewster's or Carbonated Warblers, Cuvier's Kinglet, etc. This form has stood upon the Checklist long enough to be repudiated and its geographical distribution restricted to the "hypothetical list," which is its undoubted place of residence, and it is to be sincerely hoped that when the Cooper Club issues its list of California birds that this will be placed upon such a list of the Club's *resume* of the avi-fauna of the state.

Along with the above species it would also be well for members of Committee on the

State List to inquire into the claim of *Porzana coturniculus* (Ridgway) [Amer. Nat. VII, Feb. 1874, p. III and Proc. U. S. Nat. Mus. XIII, 1890, pp. 309-311] has to a place among the birds of California. The recent extensive collecting on the Farallones has demonstrated its absence from the islands. Was not the type specimen erroneously labeled by Mr. T. C. Martin, who presented it to the U. S. National Museum? At any rate this matter will also stand some further investigation. If it proves to be a straggler from the Galapagos as suggested by Mr. Ridgway, well and good, but if not, and the type remains unique, then it deserves a similar fate to *Trochilus violajugulum*.

Two minor notes on the 2nd edition of the Checklist which have come under my notice may interest members of the Club. In the ninth supplement to the Checklist, *Auk* XVI, Jan., 1899, p. III, a new hummingbird, *Althis morcomi* RIDGWAY, is added to the list. The A. O. U. Committee fails to insert the generic reference before it, hence we have on p. 176 the specific but no generic reference. I have not access to the original literature, but Ridgway and Elliott ^a both give it the same. Hence should we not insert the following on p. 176 before No. 435:—

Genus *Althis* RIECHENBACH.

Atthis, Reich. Aufz. der Colib., 1853, 12. Type, *Ornysmia heloisa*, Less and DeLatr.

Under *Aestrelata scalaris* BREWSTER, p. 34, the reference should read:—*Auk* III, July 1886, 390 (not 300).

ROBERT BAIRD McLAIN, Wheeling, W. Va.

1. Hummingbirds, Rept. Nat. Mus. 1890 (1892) p. 380.

2. Class and Syn. Trochil. 1879, p. 113.



Book Reviews.

WATER BIRDS OF THE PACIFIC DISTRICT.—By Lyman Belding, April, 1886, pp. 246. Manuscript type-written copy. (Received by the Cooper Ornithological Club March 4, 1897).

This volume was prepared by Mr. Belding for the Division of Economic Ornithology and Mammalogy of the United States Department of Agriculture, now the Biological Survey. The book was intended to serve as a companion volume to *Land Birds of the Pacific District* and had it been printed ten years ago, would have been of the greatest service to workers along our coast. Mr. Belding has generously presented his bound manuscript to the Cooper Club. In the preface written especially to the Club, Mr. Belding says:

"The notes on water birds which I received from the observers of the district are still incorporated in this volume, except a few of Mr. Emerson's, which came too late for insertion.

"The reversing of the Check List of the A. O. U. whereby the water birds came first in the list, instead of last, as formerly, found me unprepared to give the time to the water birds that I needed, and supposing that the water birds would soon be needed for publication, I made a hurried compilation, finished it in five or six weeks and this is the result."

Water Birds contains remarks on 156 species, compiled largely from published works of Baird, Ridgway, Cooper, Suckley, Heermann,

C. H. Townsend, Evermann, Henshaw and Bendire. These are supplemented by original notes supplied by various observers of the Pacific District, including about the same men as furnished notes for the *Land Birds*. The habitat of each species is given under the trivial and scientific names, followed by notes on distribution, migration, feeding, nesting and general habits. The notes on most species are very copious, covering in many cases three and four pages. Each statement is preceded by the name of the author, thus following the plan which was found so satisfactory in the previous volume. The work is especially valuable to us on account of the exact records made for California species, of which notes Mr. Belding has supplied a large portion from his own observations. In spite of its being thirteen years old the book would furnish us with a good basis for our proposed State List.

Mr. Belding's own extensive and long continued observations on this coast have particularly fitted him for the preparation of this much-needed paper and we regret that it has not been made available for general use, as it is by far the best thing of its kind which has been done for the state. Some would perhaps object that the quotations are too lengthy, but I believe this to be one of its virtues, too often lacking in scientific works of a similar nature.

R. C. M.

In a letter received from Dawson City under date of Aug. 2, Mr. Wilfred H. Osgood of the Biological Survey expedition writes of the good health and good work of the party to date. Among others the eggs of the Varied Thrush had been taken.

Official Minutes of Northern Division.

Regular bi-monthly meeting held at Haywards, Cal., with W. Otto Emerson presiding. W. H. Kobbe of Ft. Mason, San Francisco, was elected to active membership. Bills amounting to \$3.73 for current expenses were allowed the secretary. The names of Cloud Rutter of Stanford University and Lawrence Kessing of Alameda were proposed for active membership. Votes of thanks were tendered the Buffalo Society of Natural Sciences, G. Frean Morcom, H. R. Taylor, R. H. Beck and H. W. Carriger for donations to the club. A half-tone of the adopted club crest was ordered made at once. A petition to change the present name of the BULLETIN to that of "The Condor" was introduced in writing, unanimously passed, and referred to the Southern Division for action. If adopted, this change will take effect with the January issue. Mr. Barlow read a letter from W. H. Osgood, dated Dawson City. Papers were read as follows: "A Northern Record for the Black-chinned Sparrow," by D. A. Cohen; "A Night at Sea," by A. W. Anthony; "Lassoing a California Vulture," by F. Stephens, and "Nesting of *Parus rufescens* in Washington," by W. H. Kobbe. Adjourned to meet Nov. 4.

C. BARLOW, Division Secretary.

Official Minutes of Southern Division.

The August meeting of the Southern Division was held Aug. 30 at 403 Bradbury Block, Los Angeles, Pres. McCormick presiding. Seven members were present. The following members were dropped from the roll for non-payment of dues: Roy B. Blackman, R. L. Garnier, F. B. Jewett, Bert Robbins, B. H. Swales, L. P. Williams and Otto J. Zahn. The name of H. H. Dunn of Fullerton was proposed for active membership by Mr. Daggett. Messrs. Swarth and Robertson were appointed a committee to arrange for the October outing meeting. Mr. Daggett gave an interesting account of his trip to Mt. Whitney and read extracts from a letter recently received from Jos. Grinnell, now at Cape Nome, Alaska. The following papers were read: "The Flycatchers of Arizona," (embracing the Sulphur-bellied, Olivaceous and Buff-breasted) by O. W. Howard; "Notes on the Gray-crowned Leucosticte in the Vicinity of Mt. Whitney," by F. S. Daggett, and two papers from the Northern Division.

HOWARD ROBERTSON,
Division Secretary.

Publications Received.

Bird Lore, I, No. 4, Aug., 1899.

Bulletin of the Buffalo Society of Nat. Sciences, Vols. II, III, IV, V complete and Vol. VI, No. I.

Bulletin of the Dept. of Agriculture, Nos. 2, 4 and 5, (to complete files).

Bulletin Michigan Ornithological Club, III, No. 2, April, 1899.

Giornale Ornitologico Italiano, III, No. 15—16, Mch.,—April, 1899.

Journal of the Maine Ornithological Society, I, No. 3, July, 1899.

Maine Sportsman, VI, Nos. 71 and 72, July and August, 1899.

Museum, V, Nos. 9 and 10, July and August, 1899.

North American Fauna, Nos. 11 and 12, (to complete files.)

North American Fauna, No. 15, Aug. 8, 1899.

Oologist, XVI, Nos. 6, 7 and 8, June, July and August, 1899.

Ornithologisches Jahrbuch, X, Nos. 1, 2, 3 and 4, Jan.—Aug., 1899.

Osprey, III, No. 10, June, 1899.

Plant World, II, Nos. 10 and 11, July and August, 1899.

Recreation, XI, No. 2, August, 1899.

Sports Afield, XXIII, Nos. 1, 2 and 3, July, August and September, 1899.

Wilson Bulletin, No. 27, July, 1899.

The expedition sent to the Galapagos Islands by Hon. Timothy Hopkins in the interests of the Stanford University has returned after a ten months' collecting trip, bringing much valuable material in all branches of science, including several new species of birds from formerly unvisited islands. Edmund Heller M. C. O. C. and R. E. Snodgrass, both of Stanford University, were in charge of the expedition.

Exchange Notices.

Each member of the Club, not in arrears for dues, is entitled to three exchange notices of 30 words each during the year; other subscribers, one such notice.

From EXCHANGE.—Many common Cal. eggs for sale in other localities. Among my sets are some fine series of 360a, 342, 337b, 450, 431, 466, 482, 707a, 708, 743a, 487, 365, 373c, 127 and the like. Send list and receive mine.

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DONALD A. COHEN.

Alameda, Cal.

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BULLETIN
of the
COOPER ORNITHOLOGICAL CLUB.
OF CALIFORNIA.

Santa Clara, Cal., November-December, 1899.

CONTENTS

The American Ornithologists' Union
CHECK-LIST OF NORTH AMERICAN BIRDS,

Second Edition, 1895, Thoroughly Revised.



The preface to this work defines its scope and object and includes selections from the A. O. U. Code of Nomenclature, of special importance in the present connection. The table of contents consists of a systematic list of orders, sub-orders and families of North American birds. The check-list proper gives the scientific and common name, number in previous list, and geographical distribution of the 1,000 species and sub-species, constituting the North American Avifauna. This is followed by a list of birds of doubtful status, and a list of the fossil birds of North America.

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A BI-MONTHLY EXPONENT OF CALIFORNIAN ORNITHOLOGY.

Vol. 1. No. 6.

Santa Clara, Cal., November-December, 1899.

\$1.00 a Year.

A Night at Sea.

BY A. W. ANTHONY, TAYLORSVILLE, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Sept. 2 1899.]

WHAT do the sea birds do at night? I have often heard the question asked and as often heard someone answer: "Oh, they all go to the islands to roost." Do they? Few naturalists care to spend the hours wandering about on land in hopes of discovering unpublished chapters in the life histories of our land birds, and on the water they are not only less inclined but opportunities are few and far between.

I have often passed the night with the birds off the California coast and enjoyed their company so much that I venture to give an account of one night's observations in hope that it may prove of some interest to readers of the BULLETIN. It was late in April when a visit to the Coronado Islands was planned, and as it was desirable to spend several days about the islands, I did not care to take a large boat that would have to be anchored off the rocks. Therefore a fifteen-foot skiff was loaded with camp equipage and provisions and at dark I started—alone, —because, as some one said, no one was fool enough to go with me and at night. Since it is nearly always calm then off our Southern California Coast and with nearly the full moon, it was altogether the most enjoyable time for the twenty-two mile pull to the islands.

On each of the beacons which mark the channel up San Diego Bay were resting cormorants or herons. Two or three Great Blue Herons and one Egret were seen, some crowding so close to the red light as to seem to be seeking warmth from its rays. At Ballast Point I hauled the boat upon the beach to wait the turning of the tide. Out in the channel scores of Brown Pelicans were busily engaged fishing in a close flock. So fast did they plunge it seemed to rain pelicans. They were accompanied by the omnipresent Heermann's Gulls whose whining, cat-like cries were the only notes to be heard. Between midnight and one o'clock, the tide having turned, I launched the skiff and started sea-ward. A few Western Gulls were the first birds seen. They were passing from the bay toward the kelp beds two miles to the westward.

These vast reaches of thick kelp afford excellent resting places for the gulls, terns and cormorants, and even Great Blue Herons are often seen standing on the floating mass. One arose now as I approached and flew farther out with hoarse complaint. Skirting the edge of the kelp for some two or three miles, gulls were constantly startled from their roosting places, Western and Heermann's being easily recognized. At

intervals small flocks of Royal Terns rose from the rafts of broad leaves and others were at times seen flying in from the south. Quite a number of cormorants were fishing near the southern end of the kelp, diving for the many small fish that could easily be traced through the water by their silvery, phosphorescent trails. On one or two occasions the birds chased their prey under the skiff and the larger track of phosphorescence resembled a singularly erratic comet, as it zigzagged about, three or four fathoms under water.

It was here that one of the cormorants in pursuit of a flying fish chased it out of the water so near the boat that the fish passed within a few inches of my face, and the bird, rising to the surface an instant later, was so startled by the sudden discovery of the boat, it uttered a squawk of horror which was drowned in a gurgle as its author hastily disappeared below. A cormorant never tries to fly when it is in a hurry and can as easily dive. After leaving the kelp and getting fairly out to sea, gulls were rather common, flying in small flocks of three or four to a dozen. Nearly all were migrating and many were accompanied by Royal Terns. A whistle would always call the terns aside from their line of flight but after one or two circuits and a few inquiring cries, they left the boat to pass on to the north.

Frequently flocks of six or eight pelicans would pass like grey ghosts in the moonlight, flying in "pelican order," each just behind and a little to one side of the one preceding it. They but cleared the water, rising and falling in perfect time to skim the long, smooth swell. They were all coming from the direction of the bay and flying toward the islands in a grave, business-like manner that ever marks the species as one that takes life seriously. When deep water was reached several miles from shore, the call notes of Cassin's Auklets and Xantus' Murrelets began to be heard and soon they came from

all sides, although none allowed me to get near enough to see them. At this season the murrelets have nearly all hatched their young and taken them to sea, where family parties of two adults and one or two downy young are often seen, many miles from land.

The auklets, however, though they have also hatched, are obliged to spend the night in getting food for the young which never leave the burrows until they are fully feathered. They are never fed in the daytime but at night an auklet colony presents a very busy appearance as the adults hurry in from the sea, where they have spent the day.

All night they are going and coming and some of them must go many miles from home and make perhaps several trips each night to satisfy the cravings of the ever-hungry squabs. Soon after reaching the auklets, shearwaters were seen flashing by in the moonlight and the frequent, discordant cries that reached me proclaimed them to be, in part at least, the Black-vented species. Now and then the far-off notes of a petrel came over the waves and once the dark, bat-like form of what was probably the Black Petrel hovered for a moment in the wake of the skiff and was gone.

It was now getting grey in the east and the islands were no longer blue lumps on the sea but unmistakable rough, rocky mountains but a short distance to the south. But a few minutes since a flock of pelicans passed, going toward the nesting colony on North Island and now a long line of them are seen coming back,—the first contingent of hundreds that soon start for the day's fishing. They are followed by a long, black line that, as it comes nearer, resolves itself into a seemingly endless column of Farallone Cormorants. As day breaks, pelicans, gulls and cormorants become more and more abundant, streaming out from the island in every direction, until we can easily understand how one, seeing them arrive or depart, comes to the conclusion that "all the sea birds go the islands to roost."

Some of the Summer Flycatchers of Arizona.

BY O. W. HOWARD, PT. HUACHUCA, ARIZONA.

[Read before the Southern Division of the Cooper Orn. Club, Aug. 30, 1890.]

SULPHUR-BELLIED FLYCATCHER.

THIS large and handsome flycatcher is one of the rarest and least conspicuous of its family and its range in the United States is extremely small, it being found only in the higher mountain ranges of Southern Arizona and Southern New Mexico. I believe there are more of these birds in the Huachuca Mts. than in any other range north of the Mexican line, although

other flycatchers being entirely absent. A person might be in the immediate vicinity for hours without seeing them and for this reason the nests are hard to locate, although a person could find them if he had plenty of spare time in which to watch the birds. After the eggs are hatched the birds become quite bold and noisy and may be easily located by their peculiar note which



Nest and eggs of the Sulphur-bellied Flycatcher.

even there very few are found. During four successive seasons' collecting in this locality I have not seen more than a dozen pairs of the birds, and during that time have examined five nests, all of which contained young,—the result of collecting birds' eggs on Sunday! The birds are so shy and so different from other flycatchers that it takes a long time to become acquainted with their habits.

In the breeding season the birds keep in the thick foliage of the trees and catch their insect prey in a very quiet way, the twitching, uneasy habits of

sounds like the squeaking of a limb or a wheelbarrow which needs oiling.

I noticed the first birds on the 4th of June and I do not think they arrive before the 1st. In my observations of these birds I have found that they use the same nesting cavity year after year and as soon as they appear in the spring they may be seen in the vicinity of their old nests. The nesting season of this species is very late; I do not know of any eggs being taken before the first of July and I found a nest with young just hatched on August 28, 1890. I think fresh eggs may be found

from the first of July until the 15th of August. All the nests I know of were placed in sycamore trees along a creek in the bed of a canon, at from 5,000 to 7,000 feet elevation. As a rule the cavities are large enough to admit the hand without enlarging, and vary from six inches to one foot in depth, and the distance from the ground ranges from twenty-five to fifty feet.

The nest in the illustration was taken by Mr. W. B. Judson on our trip in 1896, on July 16. It was placed in a sycamore tree about forty feet up in a natural cavity ten inches deep. This nest was within a stone's throw of our camp and was not found until two of the three eggs had been laid. We had seen the birds in the vicinity several times, but our suspicions had not in any way been aroused by their actions and we paid little attention to them until Mr. Judson happened to see the female fly from the cavity and thus we found the nest. All the nests I have examined were made entirely of stems of wild black walnut leaves without any attempt at lining whatever, excepting that the finer stems were placed on the inside of the nest.

OLIVACEOUS

The Olivaceous Flycatcher is a common summer resident in various mountain ranges of Arizona and New Mexico. It is found very commonly in the oak belt in the Huachuca and Santa Rita mountains at from 5,000 to 7,000 feet elevation. Although the birds are so numerous, the nests are very hard to find. During four seasons' collecting in these mountains I kept a sharp lookout for the nests of this bird but until this season I did not secure a single egg. In the season of '96 we spent many hours watching the birds in hope of finding a set or two of their eggs, but were only rewarded with a nest of four young birds about ten days old. This nest was in an ash tree within three feet of a trail on which we were passing almost daily. It was placed in a natural cavity about twenty feet up and ten inches below the entrance. We had seen the birds in the vicinity of this nest and watched them several times but not once did the birds cause the

A set of three slightly incubated eggs found Aug. 5, 1897, by Mr. F. C. Willard of Galesburg, Ill., was placed in a sycamore, fifty feet up, in a natural cavity in the trunk of the tree and about ten inches deep. This nest was directly over a creek. A nest which I found this season (on July 20, 1899) contained two young of this species just hatched. The nest was placed in a natural cavity in a sycamore about forty feet up and was the same cavity from which I secured a fine set of young in 1897. The nests are very large, with a shallow cup, measuring about three inches, inside diameter. The outside diameter varies according to the size of the cavity in which the nest is placed. Notwithstanding the crude material used in the composition of the nests they are rather compact and easily preserved. I have no calipers with me so cannot give the dimensions of the eggs, but they are about the size of a Kingbird's or slightly larger, rather oval in shape and marked over the entire shell with scratches and blotches of chestnut and reddish-rown with under shell markings of purple, the ground color being a shiny buff.

FLYCATCHER.

least suspicion as to the location of their nest until Mr. Judson espied the female with food for the young and saw her go to the nest.

In 1897 I noticed a pair of these birds in a certain locality several times and made up my mind they were about to build in the vicinity, so I placed some cotton along a barbed wire fence and watched results. The birds did not bite that day, but a day or two after I came back to the same place and noticed that some of the cotton had disappeared, so I sat down to watch and it was not long before one of the flycatchers lit on the fence and took a good sized piece of cotton and flew off to where its mate was perched, dropping the cotton on the way. I watched the birds for fully an hour after this but there was no further attempt made at gathering building material.

By mere accident a friend secured a single egg of this species for me last season. My friend had climbed an ash

tree to examine a nest of the Arizona Woodpecker which contained young, and while up the tree he noticed a likely-looking cavity in another limb of the same tree, so he chopped it open and found it contained a nest of the Olivaceous Flycatcher with a single egg and shells of others—evidently a deserted nest. The nest did not differ materially from two others which I am about to describe. While walking down a canon one day late in May, through some thick timber, an Olivaceous Flycatcher, presumably a female bird, flew past me and I noticed something in its mouth as it flew by. The mate followed shortly after and both birds lit on a dead oak stump not fifty feet away. I was well hidden and stood perfectly still. The birds seemed to be rather nervous and sat there for some time when the one with the building material entered a deserted woodpecker's excavation about six inches below where it had been sitting. Satisfied that the birds were only building I left the locality and returned again on the 4th of June expecting a fine set of four or five eggs, but to my disappointment the birds were not in sight

and when I looked into the nest I found it deserted. The two eggs which it contained were almost entirely hidden by the disarranged nesting material. Needless to say I took the two eggs with the nest and was glad to get them. The nest was composed almost entirely of rabbit's fur with a few tail and wing feathers of jays sticking upright around the outer edge. The nest was ten inches below the entrance to the cavity and fifteen feet from the ground; elevation about 6,500 feet. The eggs very much resemble those of the Ash-throated Flycatcher but are much smaller and the markings are finer. Mr. F. C. Willard of Galesburg, Ill., examined a nest of this species on the same date, it being placed in a natural cavity in the trunk of a sycamore tree forty feet up. This nest contained four fresh eggs but unfortunately two of the eggs were broken while chopping into the cavity. The nests did not differ from the last and the eggs from the two nests are scarcely distinguishable. Counting the egg of this species taken by my friend in '98, there are only five eggs now in existence of the Olivaceous Flycatcher.

BUFF-BREASTED FLYCATCHER.

Very few facts, if any, have been published regarding the breeding habits of this rare little flycatcher. The birds are even less numerous than the Sulphur-bellied Flycatchers, their range within the United States being about the same. I first met with the birds in 1896 during that eventful trip made from Los Angeles by wagon, a distance of about 700 miles, the party consisting of W. B. Judson, H. G. Rising, H. S. Swarth and myself. We expected to meet this flycatcher shortly after our arrival in the Huachucas and kept a sharp lookout for them all the time, but were for sometime disappointed, until finally one afternoon I was taking a stroll up the canon above the camp when I spied a small flycatcher sitting on a dead twig in the top of an oak tree on the hillside. The bird was new to me and I at once took it for granted that this was the Buff-breasted Flycatcher. I stood behind a tree watching the bird until the light grew dim and I was

obliged to make my way back to camp as I had to pass through a narrow and very rocky gorge known as "The Box,"—not a very safe place to wander around in after dark.

When I reached camp that evening I reported what I had seen and all were much interested so on the following morning June 5, 1896, all four of us made our way to the place where I had seen the flycatcher, but the bird was not in sight and we were about to make our departure when I spied a nest in a pine tree just above our heads. I at first thought this was the flycatcher's nest so I soon had my climbers on and was up to the first limb where I stopped to rest and while doing so my eyes fell on another nest in the same tree and not far from the one I had seen from the ground. The last nest looked more promising and as I sat there looking at it I noticed a very small tail sticking just over the edge of the nest. It did not take me long to climb up

even with the nest and a few kicks on the limb flushed the bird which proved to be a Buff-breasted Flycatcher. The nest was in a fork near the extremity of the limb and about twelve feet from the trunk of the tree and fifty feet from the ground.

The only way the nest could be taken was by the use of a rope, of which we had plenty. One end of the rope was passed over a large limb about twenty-five feet diagonally above the nest, then pulled around until both ends met on the ground, whereupon

size and shape of a Blue-gray Gnatcatcher's nest; the composition was of bits of dry soft leaves, fine straws and rootlets with a lining of fine fibers. The bird was very bold and not easily flushed from the nest.

The usual note of this flycatcher is scarcely describable but is entirely different from that of any other flycatcher that I have met. When flushed from the nest the bird will keep up a short low "chip". Another nest of this species found June 13, 1896 was placed in a pine tree, saddled on a large



Nest and Eggs of the Buff-breasted Flycatcher.

the boys below took up the slack and walked out until the rope passed within a foot or two of the nest. When everything was ready I twisted the rope around one leg and slid down even with the nest. After flushing the bird once more I peered over the edge of the nest to see the first four eggs of the Buff-breasted Flycatcher that had ever been found. After placing the eggs in my mouth I cut off the limb with my hatchet and slid down to the ground, leaving the other boys to pull the rope down and coil it up while I packed the treasures. The eggs were plain buff or dull white in color and of oval shape. The nest was very compact and about the

limb about four feet from the trunk of the tree and forty feet above the ground. This nest contained three eggs about two-thirds incubated and the nest and eggs did not differ from the preceding set. I found another nest on July 16, 1896 also situated in a pine tree and not far from the one last mentioned. The nest was placed in a fork near the extremity of a large limb, about ten feet out and thirty-five feet from the ground. This nest was also taken by use of a rope as described and contained three fresh eggs, but an examination of the female showed that the full clutch had been laid.

I did not secure any more eggs of this

species until July 10 of the present year, when I took a fine set of four eggs, the nest being placed in a pine sapling and saddled on to a large limb about six feet out from the trunk of the tree and thirty feet from the ground. Elevation, 9,000 feet. This nest and eggs do not differ from those I found in 1896 excepting that the nesting material is a little different, owing to the

difference in altitude. Mr. F. C. Willard found a nest of this species in 1897 saddled on a large limb in a pine tree thirty feet from the ground. This nest rested against the trunk of the tree and in climbing, Mr. Willard put his hand over the nest,—not knowing it was there—and unfortunately crushed the eggs.

* * * * *

A Northern Record for the Black-chinned Sparrow.
(*Spizella atrigularis*.)

BY D. A. COHEN, ALAMEDA, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Sept. 2, 1899.]

ON May 27, 1899 while working my way through the low, rather sparse, black sage covering a knoll in the Coast Range Mountains in Alameda county, near the line of Contra Costa county, I observed a small bird alight in one of the bushes, but before I could raise the gun it had hidden itself amongst the cover. During that brief space I caught a glimpse of the black chin and wondering what the strange bird could be, decided it was possibly Bell's Sparrow (*Amphispiza belli*). Efforts to flush it or catch sight of it again were unavailing. About two miles farther along the rocky hills, descending from a rocky ledge and barren soil with a sparse growth of sage and scrub oak to where the more fertile soil supported a healthier and more abundant growth of vegetation, I had just shot a Lazuli Bunting on a gentle incline down to the canon. Here and there was a small rock and on one of them I sat for a brief rest when a bird song, very much like that of the Lazuli Bunting in tone and duration, met my ear.

The singer had no time to repeat as he hopped about the top of a tall shrub, because a charge of dust shot ended the life of the individual which I could not clearly recognize in the strong light. Upon picking up a cleanly-killed specimen I knew it to be akin to the bird I had just previously seen, and judging it to be a male because of its song, I searched for the female or for the nest. Here was an ideal place for the nest, both sun and shade in varied quanti-

ties,—a miniature ravine, shaded by a few willow, small bay trees and burr oaks, that had been a rill in the rainy season, losing its way a hundred yards farther down the slope to a grassy hillside above the thick brush along the creek, while on each side of the ravine was mixed vegetation characteristic of the richer soils, also an occasional sage bush and rock straggling from the rugged territory higher up. One or two patches of wild blackberry vines, beds of bracken, clumps of lupine and thistles and mixed brush where a tall, coarse perennial grass flourished, were diligently searched without sign or note of a bird of any sort.

Mr. W. Otto Emerson identified the specimen as the Black-chinned Sparrow (*Spizella atrigularis*). It measured in inches 5.90; 7.88; 2.60; 2.80. Bill, pinkish-brown; irides, brown. It was a male in rather worn plumage and possibly breeding close to the spot where it was taken as this was the best site as to varied topography for its size of any for miles. The bird's song and bold actions indicated its mate was nesting in the vicinity if similar actions of other small birds are taken into account.

Mr. Belding's "Land Birds of the Pacific District" quotes on this sparrow as follows, in part:—"Santa Ana Plains, Los Angeles Co., Dec. 10-14, 1884, rather common—F. E. Blaisdell. San Bernardino, F. Stephens, tolerably common; breeds in the foothills. Colton, April 28, 1884, a fine male shot by R. B. Heron. April 29, male shot by Chas. W.

Gunn. [Mr. Stephens was the first to find it in the coast region of California, in 1883 or earlier].

I sent the specimen to Mr. Stephens at Witch Creek, San Diego Co., for further reference and he generously contributed the following notes, and remarks that the specimen appears to be in the normal male plumage. Mr. Stephens says: "All my notes and references are at San Diego so I cannot give you as definite information as I would like to. In a general way this species is more or less distributed over the brush-covered hillsides (chemisal) of Southern California, between 1,000 and 3,000 feet altitude. They appear in the latter part of March. By the end of June the song ceases, or nearly so. As they are retiring in habit, the song is the principal clue to their presence. I cannot say just how late the species remains but I doubt many birds being here after the first of August, perhaps none."

"The farthest north I have seen this species is near Independence, Inyo Co. (see Fisher's Report on the Ornithology of the Death Valley Expedition). The nest and eggs are of the usual *Spizella* character; the nest is placed in low bushes in the thick chemisal and May is the principal nesting month. I have seen small companies of fewer than a dozen birds in the migration, but usually not more than one or two pairs inhabit any one hillside. I do not consider the species common anywhere and there are large areas in southern California where it does not occur."

Echoes From An Outing.

A MEMORY OF THE SIERRAS.*

On a bright morning in early June a trio of the Cooper Club consisting of Mr. Barlow, Mr. Carriker and the deponent set out from Placerville, the old "Hangtown" of blessed memory, and took our way up over the old stage road toward the divide. A pair of handsome "bays" relieved us of physical exertion and the blistering heat of the lower valleys was tempered by the mountain altitudes. Every breeze was redolent with the o-

dors of conifers, while the broad sweeps of the mountain suburbs were a continual revelation of fresh and inspiring scenery.

Our attention is early and often called to the substantial pavement with which Nature has invested the highway and hills, and to the superfluous materials left scattered about. But even these ungentle reminders are not devoid of sentiment, for was it not over these rocks that Horace Greeley made his flying record behind the relentless whip of Hank Monk? The incident is dim in the shadow of more important events connected with the old highway, but in the light of experience the solemn conviction remains that here the seeds of lingering dissolution were planted in the tangled viscera of the great journalist.

Tradition tells us that over this trail came many of the Argonauts of '49 and bands of gold-hunters who followed in succeeding years. When the hidden treasures of the old Comstock were unfolded to the world, the old trail was converted into a chartered thoroughfare and carried the products and supplies of that historic mining camp. No suburban avenue on the continent could then rival it in value and magnitude of its traffic and old residents, with watery eyes and far-away look, still delight to tell of those halcyon years when the road was crowded with a moving procession of dusty mules and ponderous trains, of flying stages and hurrying equipages and all the turmoil of congested business to be found where gold is prevalent. But the sentiment is all of the past! When the heart of the great industry ceased to beat, associated enterprises died for want of nourishment. A few lumber-laden teams from an adjacent mill plod up and down in monotonous routine.

The wandering camper urges his weary mules toward the clear waters

* [It is proper to here mention that the locality whence Mr. Welch gleaned the observations that have entered into his delightful "reverie," is Fyffe, El Dorado Co., Cal., a point on the Lake Tahoe Road, which has of late years become a favorite sojourning point for numerous members of the Cooper Club. It is most interesting to note the impressions which are inspired in one who does not give his time wholly to the fascinations of ornithology while in the field, as do most of the workers who have visited Fyffe in the summer. Mr. Welch's keen and ready wit and generous good nature were pleasing features of the outing, as one may judge who follows through the sketch. E.D.]

and cool shades of Tahoe. Specters of decay linger in the neglected garden and unpruned orchard, and the old roadside houses stare out upon the deserted reaches like crumbling monuments in a cemetery of industries long since dead. As we ascend to higher altitudes the landscape stretches away until the pine-clad hills are melted in the mellow distance. Far down in the blue-tinted valley clustered hamlets mark the sites of busy mines, and gleams of white

caped their telescopic vision, not a flash of wings but has been promptly listed and bound in thongs of unspellable Latin. By gentle protest they are dissuaded from climbing to the top of a tall Lombard poplar to investigate the domestic affairs of a flycatcher, but there is no commercial taint to their enthusiasm,— they are not here to despoil in the name of Science! The outposts of the Sierran timber belt loom up in the distance and it is with admiration akin



Photo by Loren E. Taylor, Fyffe, Cal.

OUR OLD SIERRA CABIN IN WINTER.

(This patriarchal cabin among the pines has served often as a lodge for ornithologists sojourning at Fyffe, on the Lake Tahoe Road, during the summer.)

through spires of conifers reveal the sequestered homes of ranchmen. For more than half a century the gold-hunter has been writing history in these hills, and from the rude inscriptions 'graved with pick and shovel and drill may be read untold stories of Roaring Camp and tales of romance and pathos, of hope and despair.

With eager eyes my enthusiastic friends search the wayside for an alien visitant. Not an adjacent nest has es-

to reverence that we approach the grandest woodland in all the world. As we enter into the solemn shade and listen to the eternal whisper of its foliage, one is deeply reminded of that heritage of the supernatural which, in the ancient dawn of intelligence, peopled the solitudes with gods and phantoms.

Soon we arrive at our destination, a little nook, carved out of the forest, that might have been torn from an eastern

landscape. A plain, old road-house with adjacent out-buildings have survived in some degree the industrial paralysis. A garden with rows of cultivated vegetables and an orchard extending back to the woodland, lend an air of home-like comfort to the surroundings. We miss the rustle of Indian corn and the yellow plumes of golden-rod, but an old worm fence surrounding the enclosure completes a rustic scene that would appeal to the memory of them who know aught of eastern rural life.

Rustic simplicity prevails within. An old dusty bar, a relic of other days, before which many a weary soul has received spirituous consolation, has been promoted to the dignity of post-office. A broad, open fire-place hints of the evening blaze and the seductive pipe.

"This is the place we long have sought
And mourned because we found it not."

Here freedom is unconfined. We may occupy three chairs at a time, bunk on the post-office, skin birds on the table and smoke the room blue without provoking a questioning glance. The flag of the Cooper Club is unfurled over Sportsman's Hall, conventionality kicked out of the back door and freedom invited to shriek.

It is surprising how the appetite gains upon the clock but it is not yet the hour for luncheon and my colleagues have already assumed their nondescript costumes and vanished in the wilderness. Conservation of energy is my distinguishing trait and for what little popularity I have attained among my fellow-men, I am indebted to this virtue. Therefore I light my pipe and saunter out to see what Nature may add to the rustic picture. An "old oaken bucket" that hangs in a well of clear, cold water tempts me to the verge of harmless intoxication and then I pause by a dripping trough where a band of small frogs are rehearsing for the evening entertainment. Barn Swallows circle and twitter about the old barn, wherein a noisy hen is proclaiming the accomplishment of a maternal duty.

A band of Lark Sparrows are exploring a barren pasture over the way, while far up in the adjacent cedars a

band of those mountain Gypsies,—Blue-fronted Jays,—are juggling bird language in a most distracting manner. A meadowlark perches himself on the old rail fence and utters his clear, ringing call like a bugler on parade, while a robin in a neighboring apple tree betrays the proximity of its nest by distressing cries. A pair of bluebirds have reared their brood in the cavity of a tall stub and now spend their time gossiping about the pasture with a band of purple finches. A patch of dead blackberry vines are investigated without result, but in a growth of young conifers by the orchard fence I can hear the whining plaint of the Spurred Towhee. Upon nearer approach I hear the cry of *tsit, tsit, tsit*, so common to many birds of divergent natures that it seems as if somewhere back in the history of bird evolution they had a common parentage and this the primal, perhaps only, note of their vocabulary. The alert, black head of a Junco discloses the author of the cries and upon parting the foliage, a feeble flutter of baby wings reveals the cause of parental anxiety. A Red-shafted Flicker with his merry "cheer-up" stops to explore a dead pine. With the exception of the Red-breasted Sapsucker he seems the only representative of his kind, for though this is a haunt of the Pileated and Cabanis' Woodpeckers as well as of their smaller White-headed cousin, they are not often in evidence. A number of goldfinches are flitting about the orchard but the hour for luncheon is at hand and one cannot spoon with Nature while suffering from the pangs of an unrequited appetite.

Nature has not here shown her boldest handiwork in mountain sculpture or in arboreal creations, for the pass is not the highest, and the majestic shafts about us are but wands as compared to the giant sequoias of Calaveras and Mariposa. Yet she has done enough to impress one most profoundly with the vastness of her conceptions. Well it is that the government has sought to rescue this great aviary from the hands of the despoiler for the desecration of the axe and saw-mill is in evidence on every side. The results of our daily excursions among the warblers and

other birds of the deeper forests have been recorded by those veterans in bird-craft, Messrs. Barlow and Carriger, and although every day was replete with pleasant incidents, further reference to the subject would here be superfluous.

Yet, after the last day's work is done, I linger to bid good-bye to the pleasant associations and go out again into the lengthening shadows to witness the coming of the night. Seated upon a fallen cedar with a mattress of brown needles at my feet. I examine the treasures around me. To the north a broad sweep of the low-lying valley, untrammeled by civilization, rests languorous and dreamy in the purple haze, while beyond rise the gray, granite walls and battlements that mark the course of that erstwhile Klondike,—the American River. To the east the bald granite ridges sweep ever upward until the gleaming fangs of the great divide stand clear and cold against the evening sky.

On every side the silver stars of "mountain misery" look up from their beds of feathery foliage, and groups of tiny figworts, some robed in vestments of white and gold and others in imperial purple, are scattered over the soft carpet. Near them a snowy iris stands like a chaste nun guarding her worldly flock. A dead cedar thrusts its tapering spire far up into the blue ether and on its pinnacle an Olive-sided Flycatcher assumes his solitary watch, uttering now and anon his peculiar note. In adjacent thickets the warblers and vireos are completing their evening repast and their gentle gossip falls on the evening stillness like baby prattle of bird-land. The low, happy notes of the Chickadee are heard from every side, while from the slanting branch of a spruce a grosbeak lifts up its voice in anthem so earnest and joyous that its influence is infectious.

The dawn of night is around us; swift-footed and silently she treads the lower valleys and her cool, balmy breath permeates the forest. The clamorous birds are hushed in her mysterious presence. She pauses a little in her upward flight, while the lingering sun throws a parting kiss to the eastern hills which blush, responsive, to the

greeting. The silence that invokes the children of imagination is over the landscape and the "peace which passeth all understanding" seems to enfold the hills. "The groves were God's first temples" is a sentiment written on every hill and whispered in every wandering breeze. What simplicity is here, where the whole world may come unquestioned and leave its burdens in God's own sanctuary. What glorious absence of narrow creeds, of pompous caste and petty cliques and all the empty formalities of fashionable devotions! No gloved and perfumed usher with scrutinizing glance suggestive of credentials. No salaried choir to taint the holy anthems with stains of commerce, and no ten-thousand-dollar exponent of humility to throw bouquets of empty rhetoric. No ostentatious appeals to God to manifest His divine presence are necessary.

He is here if anywhere and you know it. These are His temples and His silent sermons are written on every side. More masterful than the creations of men are these majestic columns and eternal naves. More beautiful than the frescoes of St. Peter are these cloud-swept vaults and glorious vistas. The grandest symphonies of the masters are not more acceptable to the human heart than the sweet anthems of the birds borne upon the deep, solemn strains of these mighty wind-harps. No one who exercises thought can pass a twilight in the impressive solemnity of these groves without imbibing in some degree the sentiment which impelled that broad-minded teacher of humanity and humility, of mercy and charity, to go alone into the solitudes to pray.

The day is nearly spent and night moves silently, while the evening star rises white over the spectral hills. The weird call of a creeper is still heard, like the mocking taunt of some woodland sprite, and as I move to go, a faint twitter comes from out the snowy plumes of the deer-brush, so soft, so ineffably sweet, that it seems a benediction to Nature's silent services. The day is dead.

"Night threw her sable mantle o'er the world,
And pinned it with a star."

J. M. W., Copperopolis, Cal.

Nesting of the Sulphur-bellied Flycatcher.

BY RICHARD D. LUSK, ROSEMONT, A. T.

LONG the ever-flowing canon streams in some of the higher ranges of southern Arizona, at an altitude where grow large sycamores in abundance (5000 to 6500 feet) may be found a curious member of the family *Tyrannidæ*, the Sulphur-bellied Flycatcher. But he is not to be found in these, his breeding haunts, until spring has ripened into summer. The warblers and vireos and the other flycatchers, the beautiful tanagers and the wary Scott's Oriole with his melodious whistle, reminding one of the first strain of "Yankee Doodle," have all been back for weeks in their favorite resorts of hillside or mountain top or canon depth, ere the first pair of these birds puts in an appearance or makes their presence known by an unmusical discordant screech.

They seem to come in pairs, during the last days of May or early in June. Having killed several females in June whose ovaries showed no indication of the presence of the breeding season, I surmised that possibly they did not breed here, and, after watching them assiduously two or three seasons thro' June and even into July, I had nearly given up the quest when a companion shot one about Aug. 1 containing a fully formed egg.

With new light on the subject, I watched thereafter later in the season and on Aug. 15, '94, was rewarded by finding a set of three eggs, the first taken in the United States I believe, and which I afterward sent to the late Major Bendire. The nest referred to, as well as all subsequent ones that I have found, was in a natural cavity of a sycamore, caused by the rotting out, within the trunk, of the base of a broken off limb, of which cavities there are many in the sycamores. There is little or no cavity below the level of the opening, and those selected are quite roomy, so that the bird which is somewhat larger than the kingbird, has plenty of room without mussing her plumage, and so large is the entrance that usually the largest hand would find ample room for entrance.

The nests which are marvels of uniformity and simplicity as to materials, are made of the naturally-curved, dried leaf stems of the walnut, without a shred of lining of any kind. The stems, which are stiff and quite uniformly curved, are so arranged that their natural curves form the round nest. Sometimes, however, in case of a rough-bottomed cavity, a sub-material of small sticks, bark etc., is made use of. They are generally quite indifferently made, like most nests within cavities, but last season I found one so compactly put together that I was able to remove and handle it without injury. Though quite thick, one could distinctly see the large dark eggs through the bottom of the wire-like structure after its removal from the cavity. No other number than three of either eggs or young was ever found, I believe; no other material in the nest structure than the leaf stems mentioned; and no other location than that of a natural cavity in a sycamore by running water.

This is one of the few species nesting here, who wait their nesting for the second spring, the rainy season, which opens about July 1st. The Buff-breasted Flycatcher and the Massena Partridge are the most conspicuous other examples. It seems curious that, arriving at their breeding haunts at a time when nearly all of their neighbors are building or setting or rearing broods, and after the weather is as uniformly mild and propitious as that of Italy itself, they invariably wait several weeks before beginning to build, tho' I have learned that they commonly select a cavity within a few days after their arrival, and if not disturbed make it their rendezvous until later in the season when they see fit to build in it. I have never known a nest to be begun until the clouds were gathering for the summer rains, and only one before the rains had actually well begun, the latest nest being taken Aug. 15, but these eggs were well incubated. Two pairs I have seen drowned out of their cavities by the driving rains filling them to over-flowing; in fact my

first eggs were almost submerged in water just after a hard storm, and last season I took an incomplete set of two from beneath nearly two inches of water in a water-tight cavity filled to the brim. These birds had gone some fifty yards up the stream and built anew.

They are a very shy, suspicious bird and I could rarely get an opportunity to watch them at their nesting, except by going while they were away from home and quietly awaiting their return in an inconspicuous place. Presently the subdued, discordant screeching of the two birds at once would announce that they were about the cavity, and this particular tone I never heard anywhere else, so it became a clue to me. I was unable to ascertain whether the male assisted in the work of nest building but think that he did. 'Tis a very common habit with them to alight on a high commanding position and take an extended survey before going to the nest. If they see you and leave, don't think to hide and await their return for the eggs may cool for hours, but Mrs. Sulphur-belly will not return until you are gone and not until she sees or hears you go. They are usually very quiet except during the morning hours.

Their normal call is about the most unmusical imaginable. I am at a loss to describe it, and certainly can give no idea of it by the use of sounds represented by the English alphabet, or by notes of the musical scale, and, for the sake of my native tongue and of the divine art of music, I'm not sorry that I can not. It resembles slightly the screech of a large wheel devoid of lubricant, uttered once, or, often when two or more are in company, several times in succession. Heard once, it will never be forgotten or confused with any other bird voice. As for a song, I learned that they do have one. Just after sunset, one evening last August one of them perched upon the top of a small oak on a steep hillside, and, for several minutes, at intervals, executed what he certainly meant for a song. It slightly resembles that with which the Kingbird awakens one at the first streak of dawn, when sleeping out of

doors, as we so often do here in our hunting and traveling.

If, as I suspect is true among birds, a harsh, unmusical voice betokens a harsh, disagreeable nature, these birds must have very unlovely natures indeed; and I have often fancied that, either from fear or repugnance, other birds give them a wide berth. They seem fearless, but rarely, if ever, engage in chasing the raven or hawk as do the other flycatchers. Have rarely seen them chase birds from their nesting tree even tho' I have repeatedly seen a Cooper's Hawk alight on its top and remain for some time. The eggs of different birds of this species vary considerably as to size and also as to relative dimensions. Their creamy white ground is spotted and somewhat blotched with two shades of brown and lavender, very heavy on large end, the ground color there peeping thro' only here and there on some of the more heavily marked specimens, and assuming a streakiness on the more thinly marked portions of shell, but always marked plentifully over the whole area. An incomplete set of two in my possession here measure 1.00x.78, .99x.77 inches and a single, an addled egg, taken from a nest containing two young birds, measures .95x.72. This last is the minimum, so far as I have seen, the first two fairly representing the average.



Mr. John M. Willard who is located at Susanville, Cal., writes us under date of July 15 from Eagle Lake, Lassen Co. that two plume hunters have killed nearly 400 grebes on the lake thus far for the season. He states that they cannot be reasoned with in the matter and profess to be unable to discern a difference between the taking of a few skins for scientific purposes and slaughtering the birds. This but records one more offense against decency, such as is carried on by vandals in almost every isolated district in which birds of valuable plumage congregate, and there seems no way of remedying the evil. Let us hear from some practical ornithologist on the subject.

The editor recently enjoyed a call at the home of Mr. Lyman Belding of Stockton, Cal., one of the three honorary members of the Cooper Club. Mr. Belding seems as well preserved and as active as he was years ago when he wrote his well known volume, *Land Birds of the Pacific District*, and still enjoys frequent outings in the Sierra Nevadas, where he engages in fishing and hunting and bird study as a pastime.

Correspondence.

A Plea for the General Use of Scientific Names.

From time to time various persons, presumably intelligent collectors, have asked why we cannot dispense with scientific names of birds and use the English altogether. Such a peculiar proceeding has even found favor with the prophet of all good amateur ornithologists,—Dr. Coues. Mr. Hornaday¹ and Mr. Stephens² demand that all birds and mammals be supplied with common names. Their claim seems to be that trivial names are more easily comprehended by the public than scientific names. It has been my experience that *Ardea virescens* means, to the average person, quite as much as Green Heron. Although some names as duck, sparrow and woodpecker have ideas hitched to them, such concepts are usually worthless. On this point we will speak later.

Another class demanding attention and common names, is the great tribe of half scientists—those who find a pleasure in knowing something of the relationship of animals. They are terrified, however, by scientific names and are content to keep such in a closed "key" or "check-list," knowing the birds by their number as if they were so many prisoners. Why not use the name that every one will know? The scientific names must be learned sometime, thus doubling the work. Why not learn them at once?

Names of Latin form are a necessity for several reasons, so evident that it seems a waste of space to mention them. In the first place they are a necessity because not all people speak one language. Latin being the most universally known is the best language from which to build our handles, graspable by scientists of whatever nationality. Secondly, it is impossible to find enough common names to supply all the species of birds. Hear now what Dr. Allen says:³

"As regards the names of species of animals or plants, but a small proportion are ever recognized in any vernacular tongue, because unknown to the average layman. When discovered and made known by science, a vernacular name is often invented for them, as well as a scientific one. Yet many of the most remarkable and familiarly known animals and plants never acquire a name other than the scientific one, compounded of Latin or Greek, which the laity adopt in common with scien-

tists, and never even dream that they are using the technical language of science. Hippopotamus, rhinoceros, and the names of many of our ornamental plants are cases in point."

With many of our American birds we use the generic names as trivial terms. No one has trouble with *Phainopepla*, *Leucosticte*, *Junco*, *Pyrrhuloxia*, *Merganser* or *Vireo* when used as common names; perhaps they look more terrific when printed in italic. If I am not mistaken *Vireo* and *Junco* were adopted by a vote of American ornithologists as being preferable to *Greenlet* and *Snowbird*.

Another reason for using Latin names is that they show us something of the relationships of animals. Thus if one speaks of a *Dryobates* or a *Dendroica* or a *Salpinctes*, we know nearer what group of species is intended than if woodpecker, warbler or wren is used. That is to say, the scientific is applied with more exactness than the common name.

There is another trouble with trivial names. They are coined by anyone who takes a notion and while not differing so far from scientific names, they do differ in being purely local. The result is that one bird species may have many names, or, that several birds may have the same name. Thus *Colaptes auratus* has been found to sport at least thirty-six common names.⁴ Again the name Yellow Hammer is used for *Emberiza citrinella* in England, for *Colaptes auratus* in the eastern states and for *C. cafer* on this coast.

Mr. Gordon Trumbull,⁵ at great pains, has collected the names used by gunners for the various game birds. This book illustrates the great confusion which comes from the use of common names.

It might be possible to have uniform common names for well known birds, but when we come to peculiar forms as *Pyrrhuloxia* or *Phainopepla*, we have no common names and the trouble is still worse as we go into Mexico or Africa. Then again even if we found it possible to use English names for all mammals and birds or even all vertebrates, there are still unprovided for hundreds of thousands of invertebrates as suggested by the Rev. W. F. Henninger.⁶ Not only have we a host of living forms, but to be consistent we should have to find names for the palaeontologist with his thousands of vertebrates and invertebrates.

If, as Mr. Beal⁷ has told us, grangers prefer and use scientific names and terms, certainly ornithologists and oologists who pretend to know something of science can use scientific names. I would suggest that we do

away with trivial names in our literature and correspondence at least. This would simplify things immensely. Not only would space be saved in faunal lists but in exchanging specimens one would need be familiar with only one set of names. It is extremely annoying to receive a list of trivial names and have to translate them before knowing what species are offered. Ichthyologist, mammalogist, herpetologist, and invertebrate systematists seem to struggle along without the use of trivial names; why cannot ornithologists? If we had a list of common names which were ordinarily recognized, they would be useful, but such a thing is impossible, and why we should advocate the use of such names as smew, jabiru, limpkin, parauque, grassquit and dieckessel is a fact I do not understand. Scientific are more accurate than, and as readily used when known, as trivial names, in fact, are often preferred. The recognition of both increases, without any accompanying advantage, the labors of memory; common names can never become to any extent so well known as the scientific. These are the reasons for which I advocate abandoning trivial terms.

RICHARD C. MCGREGOR.

Palo Alto, Cal.

1. *Auk* XII, 91.
2. *idem* 191.
3. J. A. A. *Auk* I, 303.
4. Audubon Mag. I, 101.
5. Names and Portraits of Birds.
6. *Opere* IV, 12.
7. F. E. L. Beal. *Auk* XII, 192.

Importance of Accuracy in Lists.

Every bird student and collector will read with pleasure such lists as that of Mr. Price on the Birds of the Lower Colorado Valley, and that other lists are to be published from time to time. At the start, however, I wish to give a word of caution against placing in such lists any bird that has not, without a shadow of doubt, been identified either by actual specimens secured or by familiarity with the species. While I do not wish to detract from Mr. Price's observations, a careful perusal of his list shows that nineteen out of ninety-one birds mentioned are either doubtful or simply a guess as to their identity.

In this age of careful and systematic research our lists, which are to be the basis of all future work in that line, should contain only actually identified species. In connection with such a list, a sort of supplementary one should follow, giving all information possible as to birds that were observed but of whose identity there was a doubt. In other words, leaving

for the future observer a chance to follow up such observations and earn for the bird a place in the list proper.

Every observer has to fight constantly against the inclination to identify a bird when he feels in the bottom of his heart that he is not quite sure of it. So he may put it down with more or less elaborate notes which may be confirmed afterward by some observer with more time or better facilities, or it may not. In the one case by a lucky guess he places on the list a name which rightfully belongs there only after identity by another. In case of an unlucky guess he has placed on record something that causes more or less confusion to others for years to come.

So I say put in the lists only such birds as are without question and absolutely identified. The principal value of these lists will be to define the geographical range of species and sub-species and in some cases the lines are so finely drawn that identity in the field, excepting under the most favorable conditions, is almost impossible. In such cases enough specimens should be secured to settle the matter. If this cannot be done then the fact that cormorants, or whatever the bird may happen to be, has been seen should be mentioned in the supplementary list, leaving the identity of the species to whoever may follow, after which it may rightfully belong in the list proper.

FRANK S. DAGGETT.

Pasadena, Cal.

Book Reviews.

NATURAL HISTORY OF THE TRES MARIAS ISLANDS, MEXICO. By E. W. Nelson, North American Fauna No. 14, U. S. Dept. of Agriculture, April 29, 1899, pp. 97.

This paper contains all the information which the Department of Agriculture has secured through the work of Mr. Nelson of the Biological Survey, who thoroughly explored the Tres Marias group in May, 1897, making collections of birds and mammals and securing also specimens of reptiles, fishes, mollusks, crustaceans and plants, on all of which complete reports have been given in the present work. The general description, birds, mammals and a partial bibliography of the islands are by Mr. Nelson.

From the introduction it appears that the islands have been known since 1532 but no scientific work was accomplished there until 1865 when Col. A. J. Grayson visited the group. The four islands are 65 miles from San Blas, and the highest of the group, Maria Madre, reaches an elevation of 2,000 feet. The islands are mountainous and fresh water is scarce in summer. Mr. Nelson records 83 species and subspecies of birds from the group.

It appears that the bird life of the islands is somewhat restricted and there is a noticeable lack of the species occurring on the adjacent main-land coast. This Mr. Nelson attributes to the scarcity of water and the prolonged dry season of the Tres Marias. In the list which is given, numerous North American species are noticeable. From the Tres Marias group was described Forrer's Vireo (*Vireo flavorufus forreri*) mentioned in the July-August BULLETIN. The paper is but another of the admirable series constituting the *North American Fauna*, reflecting at the same time much individual credit upon Mr. Nelson. It will prove of interest to Coast workers and especially to any intending to undertake tropical work in ornithology. C. B.

A REVIEW OF THE ORNITHOLOGY OF THE GALAPAGOS ISLANDS. With Notes on the Webster-Harris Expedition. By the Hon. Walter Rothschild Ph. D., and Ernst Hartert, Plates V. and VI. Reprint from *Novitates Zoologicae*, Vol. VI. August, 1899, pp. 86-205.

From the fact that some of our members have made collections in the islands, and several others, members of the Anthony party, made an attempt last spring to reach the archipelago, a short notice of the present paper seems desirable. The paper consists of six parts. I. Introductory Notes. II. Diary of Charles Miller Harris. III. Notes from the Diary of Mr. F. P. Drowne. IV. General Remarks about the Fauna of the Galapagos Islands. V. The Birds of the Galapagos Islands. VI. List of the Birds Known to Occur on the Galapagos Islands.

Certhidea olivacea ridgwayi, *Geospiza darwini*, *G. dubia similis*, *G. fuliginosa minor*, *G. scandens septentrionalis*, *Nesopelia galapagensis exsul* and *Creycicus sharpei* are described as new. Four species of *Pyrocephali* are reduced to synonymy, *P. nanus* and *P. dubius* alone being recognized. "Only two forms can be distinguished from the Galapagos Archipelago, the forms separated by Ridgway on account of certain alleged differences in colour, not being recognizable." The differences in color assigned by Ridgway to *Certhidea salvini* and *C. albemarlei* are said to be due to different ages of the specimens. These two names are, therefore, discarded.

Perhaps the most radical change in nomenclature is the use of trinomials for the local forms of *Passeres*, which proceeding seems quite reasonable however. "If trinomials are used everywhere else, there is no reason why the birds of the Galapagos Islands should be deprived of this most useful form of nomenclature. In cases where certain individuals of representative forms are hardly, if at all, distinguishable, but where a series is easily separable, the recognition of subspecies is inevitable. Our material has generally left very little doubt to us, whether we should treat a form as species or subspecies."

In the list of birds known to occur on the islands, 108 species and subspecies are given,

representing fifty genera. Of these seventy-nine are peculiar to the ornis. Plate V is poor. It illustrates *Diomedea irrorata*, *Phaethon aethereus* on its nest, *Anous stolidus galapagensis*, and *Amblyrhynchus cristatus*, all from Hood Island. Plate VI is interesting and useful. It illustrates Bills of the Genus *Geospiza*. Seven pages are devoted to general remarks about the origin of the islands and their fauna. "There are two theories: viz., that of Darwin, Wallace and most other naturalists, that the islands were uplifted from the ocean and never were in connection with the continent of America, or with each other; and that of Dr. Baur, who said that the islands were once connected with America and with each other, and were submerged in or after the Eocene period. Both these views must be taken into earnest consideration."

Having considered all the evidence in the case and having made a careful study of their ample material in the bird line, consisting of 3075 skins from the Harris expedition, the Baur collection of about 1100 skins, and constant access to Gould's and Salvin's types in the British Museum, Dr. Rothschild and Mr. Hartert make the following conservative statements: "I. The entire fauna of the Galapagos Islands derived originally from America. II. It is uncertain whether there has ever been a land-connection between the various islands and between the islands and the continent or not."

R. C. M.

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A Club Crest.

The accompanying design has been adopted by the Cooper Ornithological Club as its official crest and will be used as an imprint in connection with the issuance of special publications and monographs by the Club. It has also been arranged to have the crest imprinted upon stationery for the especial use of members of the Club, a majority of whom have already adopted the idea.



The design was drawn by Mr. W. Otto Emerson, a prominent artist and Club member who has in process a striking cover, for "The Condor," when the present BULLETIN enters upon its second volume under its new title.

General News Notes.

A NOTABLE EGG COLLECTION.

It may prove of interest to western oologists to learn that during the past few months two Californian collections have changed hands. The extensive collection of H. R. Taylor has been broken up and the greater part of it acquired by Miss Jean Bell of Ridley Park, Penn. Recently the entire private collection of C. Barlow has passed into Miss Bell's possession, the owner feeling that the completion of the collection had been rendered difficult by an entire absence of time to secure and add new species. The features of the Barlow collection were its raptures, select sets with nests, and a fine representation of Farallone species.

It is interesting to note the extent of the very choice oological collection now possessed by Miss Bell, as it is perhaps the largest and most valuable private collection in the United States. Into this superb collection have been absorbed the private cabinets of Messrs. Josiah Hoopes, Isaac Reiff, H. K. Jamison, J. W. Preston, Watson Bishop and C. Barlow besides over 1000 selected sets from the collection of Thos. H. Jackson and several hundred choice sets from H. R. Taylor's collection.

The collection is finely represented in raptures, containing among other good things series of Everglade Kite, Sharp-shinned and Broad-winged Hawks with nests, Canada Jays, Ravens, rare Sparrows etc. Interesting individual sets are Solitary Sandpiper 1-5 (unique) and California Vulture. 848 species and sub-species on the A. O. U. check-list are represented in the collection, which is contained in a special museum building built purposely to receive it and to which has recently been added an extension to accommodate newly acquired specimens.

An interesting event occurred at noon on Sunday, October 15, when Mr. Chester Barlow, editor of the Cooper Ornithological Club's BULLETIN, and Miss Jeannette E. Nicholls were united in marriage at the home of the bride's parents in San Jose, California. Miss Minnie Winter acted as maid of honor and Miss Marie Williams as bridesmaid, the groom being attended by H. R. Taylor. The ceremony was performed by Rev. C. J. Thompson, in the presence of relatives and a few intimate friends of the family. The bride is one of the most charming young ladies for which the "Garden City" of the state is noted. The groom holds a responsible position in the

Santa Clara Valley Bank, and has a host of friends in and out of scientific lines who will wish the couple many happy years. After December they will make their home in Santa Clara.

Among the choice gifts was a handsome dinner set of Haviland china from the Northern Division of the Cooper Ornithological Club, of which Mr. Barlow has been the popular secretary for over six years. The presentation, a complete surprise, was accompanied by autographic congratulations from the members, bound into a unique souvenir, beautifully designed by Otto Emerson and artistically inscribed as follows:

"With compliments and all felicitous wishes to our good friend, our honorable secretary and editor, Chester Barlow, on his happy accession of a Bird of Paradise! From the Northern Division of the Cooper Ornithological Club of California, October 15, 1899." To which the editorial associate, having here for once personally asserted his prerogative, can add or detract nothing.

H. R. T.

The expedition sent out to the Yukon River district by the Biological Survey in charge of Messrs. Wilfred H. Osgood and A. G. Maddren, and accompanied by Dr. L. B. Bishop, has returned and Mr. Osgood has been spending a few days at his former home in San Jose. With the exception of being capsized near Circle City and losing all their collecting equipage save their specimens, the party had few mishaps and accomplished much work of permanent value. The northern range of many species was very materially extended. Mr. Osgood left for Washington Oct. 29.

Word has been received from Joseph Grinnell who has spent the past eighteen months on the Kowak river in the Kotzebue Sound region, Alaska, above the Arctic circle. They were ten and a half months without communication with the outside world. On July 9 their little craft, the "Penelope," broke through the ice of Kotzebue Sound on its way to Cape Nome where they arrived three weeks later. Here the party will remain until late in September, stopping at Dutch Harbor, in the Aleutian islands on their way home.

A great mass of material of rare interest has been collected and numerous notes and facts recorded, which cannot but delight the ornithological world. Mr. Grinnell's reputation for accuracy of observation and indomitable energy is well known and the results of his explorations in this heretofore unknown region will not only redound to his credit, but to that of the Cooper Ornithological Club, of which he is an active member, as well.

BULLETIN
of the
Cooper Ornithological Club
OF CALIFORNIA.

Published bi-monthly at Santa Clara, Cal., in the interests
and as Official Organ of the Club.

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A. I. McCORMICK, Bradbury Block, Los Angeles, Cal.,
Business Managers.

Subscription, (in advance)	One Dollar a Year.
Single Copies,	25 Cents.
Six Copies or more of one issue,	12½ Cents Each.
Foreign Subscription,	\$1.25.
Free to Honorary Members and to Active Members not in arrears for dues.	

Advertising rates will be sent on application.

Advertisements and subscriptions should be sent to the
Business Managers.

Exchanges should be sent to the Editor-in-Chief.

Notes of interest and striking ornithological photo-
graphs for illustration are solicited from members.

When extra copies are desired, they should be ordered
at the time of communicating the article.

Write plainly and confine your article to one side of the
sheet.

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Entered at the Santa Clara Post-office as second class
matter.

This issue of the Bulletin was mailed Nov. 16.

EDITORIAL NOTES.

As a Club accomplishment, the members of the Cooper Ornithological Club may feel a pardonable pride in the completion of Volume I of the BULLETIN, and a glance backward to the time of its inception is not irrelevant at this time. Formerly the Club secured uncertain space for its proceedings in current ornithological magazines until the expansion of the Club and the gradual contraction of its publishing space made this system of publication wholly impracticable. Then was the proposition to establish its own Bulletin brought before the Club. It was at first proposed to publish a quarterly of twelve pages, as the Club did not wish to attempt more than it could accomplish. However the more sanguine members favored a bi-monthly of sixteen pages, and as such the BULLETIN was launched, its success being at that time somewhat dependent upon the outside support it might receive.

Now, at the conclusion of the year, we find that the issues have ranged from sixteen to twenty-four pages each, issued promptly on the fifteenth of each publishing month, and financially the paper has far exceeded the success anticipated by its most ardent supporters. It is proper to remark that the numerous valuable papers presented during the year and the success of the BULLETIN itself, is due largely to the active interest shown, and aid extend-

ed the editors, by individual Club members. Without such united effort the Club could not have accomplished the work which it has, and to its members as well as outside supporters the editors express their appreciation. Under its new title, "The Condor," the magazine will begin Volume II, its editors feeling that the unique and briefer title will prove a material benefit.

One of the most notable published photo-
graphs of the year is that of the founders of the American Ornithologists' Union appearing as frontispiece in *Bird-Lore* for October. The plate is a composite one of photographs taken in or about 1883 and is unusually interesting as showing many of the now veteran workers at a time when they were actively engaged in field work and the making of ornithological history. Marked changes are observed in most cases when the photographs are compared with those more recently taken, and a number who grace the present plate have since passed away, among them being Spencer F. Baird, Major Chas. E. Bendire and Geo. N. Lawrence.

Through a fortunate coincidence we have re-
ceived contributions from both Messrs. O. W.
Howard and Richard D. Lusk on the nesting
habits of the Sulphur-bellied Flycatcher in
Arizona. We have accordingly given both
papers space in this issue, feeling that an in-
creased knowledge of the habits of this little-
known species will be welcomed by ornithol-
ogists. Mr. Howard's notes on the Olivaceous
and Buff-breasted Flycatchers also present
many valuable facts new to science.

We devote a portion of our space this month
to a "reverie" by Mr. John M. Welch, whose
love for the "poetry of Nature" must have
been shared by every true ornithologist who
has sojourned in the timber belt of the Sier-
ras. After all, ornithology would lose much
of its zest as a study, could we not constantly
associate it with the activity of out-door life,
and well 'tis so!

During 1900 the Cooper Ornithological Club
will issue several special publications of special
interest and importance to working ornithol-
ogists. This becomes necessary with the re-
ceipt of lengthy manuscripts—monographs in
fact—which cannot be published entire in the
BULLETIN, and which are in every way worthy
of being given the importance of separate pub-
lications of the Club.

With the advent of winter evenings and
abundant opportunity to peruse last season's
note books, there should be an influx of ab-
sorbing papers, such as come only from the
active field-workers.

The BULLETIN, although beginning its sec-
ond volume under the new cognomen, *The
Condor*, will remain under the same manage-
ment as heretofore, being fully supported by
the Club.

Gray-crowned Leucosticte on Mt. Whitney, Cal.

While making the ascent of Mt. Whitney, July 23, I found the Gray-crowned Leucosticte fairly abundant. In the Upper Crab-tree meadow half a dozen were seen feeding about moist grassy places, and at the foot of the trail to the top, at the old bolometer station, about 12,000 feet elevation, a dozen or more came into camp after crumbs, hopping within five feet of members of the party.

Right under the crest of Mt. Whitney, at an elevation of about 15,000 ft., a pair were gleaning food from a large snow drift. This bank had melted, leaving cones of snow 18 inches high all over its surface, and the birds flew from cone to cone examining all sides. Upon investigation I found quite a number of lepidopterous insects (no coleoptera) adhering to the moist surfaces and the birds were evidently feeding upon them. A storm of hail passing over drove the birds under granite slabs for shelter, but they were back onto the drift as soon as it ceased. Specimens taken and dissected, at 11,000 feet elevation, showed no trace of insect food. However, it is of interest to know that the highest point in the United States outside of Alaska, (Mt. Whitney 15,086 feet elevation) can sustain bird life. I saw no other variety of bird above the timber line.

FRANK S. DAGGETT.

Pasadena, Cal.



Official Minutes of Northern Division.

NOVEMBER.

The Division met at the home of H. C. Ward in Alameda Nov. 4, President Emerson in the chair and thirteen members in attendance. Lawrence Kessing of Alameda was elected to active membership. Bills for current expenses, amounting to \$3.15 were paid. Upon motion, Mr. Emerson was requested to complete his design for a new cover for the BULLETIN, when it shall begin its second volume as "The Condor," and after approval by the Publication Committee a cut was ordered made to be used on the January issue. Nominations for officers for 1900 resulted as follows: For President, W. Otto Emerson; Vice President, Theodore J. Hoover; Secretary, C. Barlow; Treasurer, Donald A. Cohen. Mr. McGregor

spoke upon a new line of work which the Club proposes to undertake in 1900—that of issuing special publications or memoirs as funds and material warrant. It was ordered that such publications be authorized and issued by the Club from time to time and under such title as may be later determined upon. F. W. Koch of Merced and Wm. R. Flint of Oakland were dropped for delinquency. Mr. McGregor presented an interesting paper entitled "Dicromatism in the Genus *Carpodacus*" which was amply illustrated with skins of various forms of the *Carpodaci* group. A paper by Mr. Jos. Mailliard entitled "Land Birds of Marin Co., Cal." was read by title owing to the lateness of the hour. Adjourned to meet at the home of C. Barlow in Santa Clara on January 6.

C. BARLOW, Division Secretary.

Official Minutes of Southern Division.

SEPTEMBER.

The Division met at the home of M. L. Wicks Jr., with President McCormick in the chair. The name of Mr. Roth Reynolds was proposed for active membership. The name of Harry H. Dunn which was proposed for membership at the last meeting was withdrawn. The Outing Committee failed to decide upon a place for the outing and was given further time to act. Resolutions from the Northern Division to change the present name of the BULLETIN to that of "The Condor" were read, the change to be made with the January number. A letter from C. Barlow pertaining to the subject was also read. The change was adopted by unanimous vote of those present. It was, however, recommended that the words "Continuation of" be dropped, making the new title read: "The Condor; Bulletin of the Cooper Ornithological Club." Mr. Daggett read a paper entitled "Desirability of Positive Identification in Lists." Two papers from the Northern Division were read. Adjourned.

HOWARD ROBERTSON, Division Sec'y.

MR. F. S. DAGGETT'S PRIVATE REPORT OF THE OUTING MEETING.

My Dear Robertson:

The Cooper Ornithological Club held its annual meeting at Wilson's Peak Oct. 28-30, the feature this year being the attendance of visitors, among which were A. N. Wright, Mrs. F. S. Daggett, Miss Ethel Daggett and Geo. Key. Several papers of rare interest were read (besides the *Los Angeles Times*, *Los Angeles Express*, *Pasadena Star* etc.) Flash messages were sent to absent members at Los Angeles 23 miles distant, also to Santa Monica 41 miles away, (no reply received). The members made their headquarters at Martin's Camp but extended their investigation to Strain's Camp beyond; in fact covered the peak pretty thoroughly during the three days. No new birds were noted but many old friends in the shape of Thick-billed Sparrows, Mountain Chickadees, West. Bluebird and a pair of California Vultures circling over Eaton Canon were noted.

When the party started down Monday morn-

ing the thermometer registered 38 deg. and they were all awakened in the night by a hail-storm, the pellets as big as eggs (*Hummingbird's*) banging on the shake roofs with a tremendous noise. An interesting letter from Joe Grinnell written a few days before he left Cape Nome for home was also read. By the way, Robertson, I was the only *member* present, but we had all the elements of a successful meeting and with the above pointers you ought to give a report which will make the Northern fellows green with envy! Where were the rest of them? Not necessary to state number of members present!

Truly Yours,
FRANK S. DAGGETT.



Publications Received.

Jordan, David Starr and Richard C. McGregor. List of the Fishes Collected at the Revillagigedo Archipelago and Neighboring Islands. (U. S. Fish Com. Rept., 1898, 271-284.)

Newton, Prof. Alfred. A Dictionary of Birds. Cheap Issue, Unabridged. Oct., 1899, pp. 1088. Macmillan Co., New York.

Norris, J. Parker Jr. Some Facts About the Consistency of the Chairman of the A. O. U. Committee on Bird Protection. Privately Printed, Philadelphia, 1899.

Annual Report of the Smithsonian Institution, 1896.

Bird Lore, I, No. 5, Oct. 1899.

Journal of the Maine Ornithological Society, I, No. 4, Oct., 1899.

Maine Sportsman, VI, Nos. 73 and 74, Sept. and Oct., 1899.

Museum, V, Nos. 11 and 12, Sept. and Oct., 1899.

North American Fauna No. 16. Results of a Biological Survey of Mt. Shasta, Cal., Oct. 28, 1899.

Oologist, XVI, Nos. 9 and 10, Sept. and Oct., 1899.

Osprey, IV, Nos. 1 and 2, Sept. and Oct., 1899.

Publications of the U. S. National Museum, Nos. 1076, 1078, 1079, 1080, 1083, 1090, 1091, 1093, 1116, 1118, 1134, 1144, 1153 and 1166.

Recreation, XI, Nos. 3, 4 and 5, Sept., Oct. and Nov., 1899.

Sports Afield, XXIII, Nos. 4 and 5, Oct. and Nov., 1899.

Sunset, III, No. 6, Oct., 1899.

Wilson Bulletin, No. 28, Sept. 30, 1899.

List of Members of the Cooper Ornithological Club of California

NOV. 15, 1899.

(Membership is in California unless otherwise designated.)

HONORARY.

Belding, Lyman, Stockton
Bryant, Walter E., Santa Rosa, Sonoma Co
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Adams, Ernest, 364 South 9th St, San Jose
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Beck, Rollo H, Berryessa
Bulton, A L, Berkeley
Carriger, Henry W, 1910 1-2 Lyon St, San Francisco
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Johnson, H C, American Fork, Utah
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BULLETIN
of the
COOPER ORNITHOLOGICAL CLUB.
OF CALIFORNIA.

VOL. 1.

Santa Clara, Cal., September-October, 1899.

No. 5



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